

THE *Country* GUIDE

In This Issue . . .

- Farm Production Control
- Get More from Sprays
- Peony Planting

CANADA'S NATIONAL RURAL MONTHLY

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APRIL 1961 — 15¢

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THE Country GUIDE

Incorporating The Nor-West Farmer and Farm and Home

CANADA'S NATIONAL RURAL MONTHLY

In This Issue

FAMILY FARM THAT'S TOPS is how we describe the Martins of West Montrose, Ont. Guide editors Gwen Leslie and Don Baron tell about this hard-working family on pages 16 and 17.



CROP INSURANCE has entered its second year in Manitoba. Is it a success? What lies ahead? Ralph Hedlin reports in "One Year's Experience" on page 19.

THE GENTLE PAST is recalled in a photo-story on page 70. See costumes that were collected for Saskatchewan's Pion-era.

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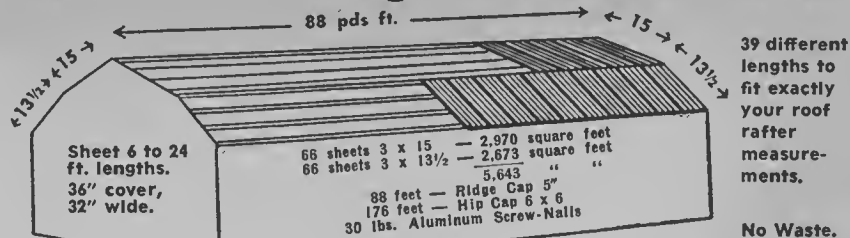
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COVER: Junior woodsmen do the chores with a power saw nowadays in place of the ax that Dad used to wield.—Ina Bruns photo.

Metallic Farm Roofing Ribbed-Aluminum or Galvanized



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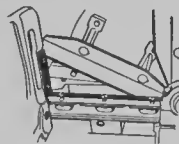
Exclusive features give you more for your machinery dollar.

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2 SAFETY CLUTCH—Out in the open and easy to reach. You shift into and out of chain and sickle power without cutting PTO.



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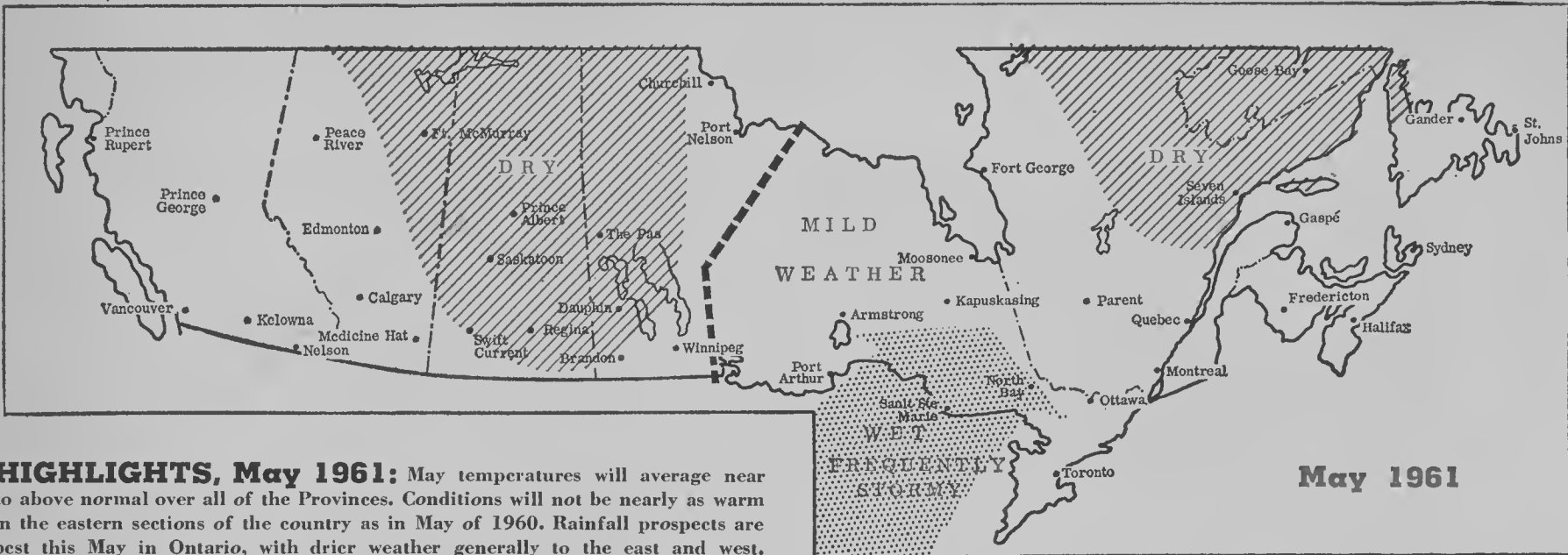
Printed and published by The Public Press Ltd. President: J. E. BROWNLEE, Q.C.
Publisher and Managing Director: R. C. BROWN Business Manager: J. S. KYLE
Circulation Manager: G. B. WALLACE Advertising Manager: R. J. HORTON
Subscription rate in Canada—50¢ one year, \$1 two years, \$2 five years, \$3 eight years.
Outside Canada—\$1 per year. Single copies 15¢. Authorized as second class mail, Post Office Department, Ottawa. Postmasters return Forms 29B and 67B to:

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Serving Canadian Farmers Since 1882

Weather Forecast

Prepared by DR. IRVING P. KRICK and Associates

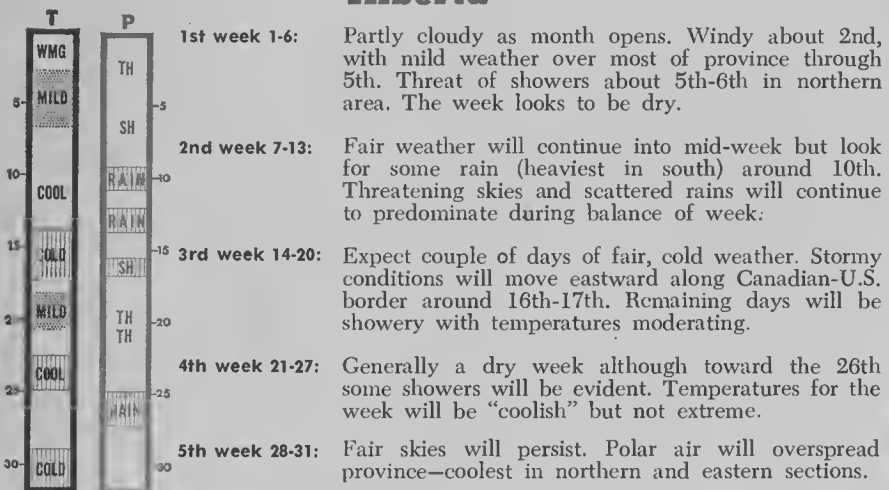


HIGHLIGHTS, May 1961: May temperatures will average near to above normal over all of the Provinces. Conditions will not be nearly as warm in the eastern sections of the country as in May of 1960. Rainfall prospects are best this May in Ontario, with drier weather generally to the east and west.

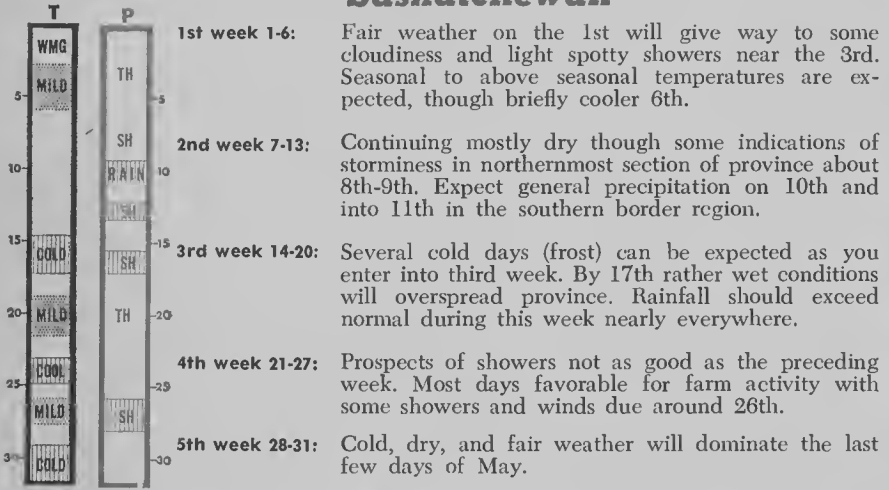
May 1961

(Allow a day or two either way in using this forecast. It should be 75 per cent right for your area, but not necessarily for your farm.—ed.)

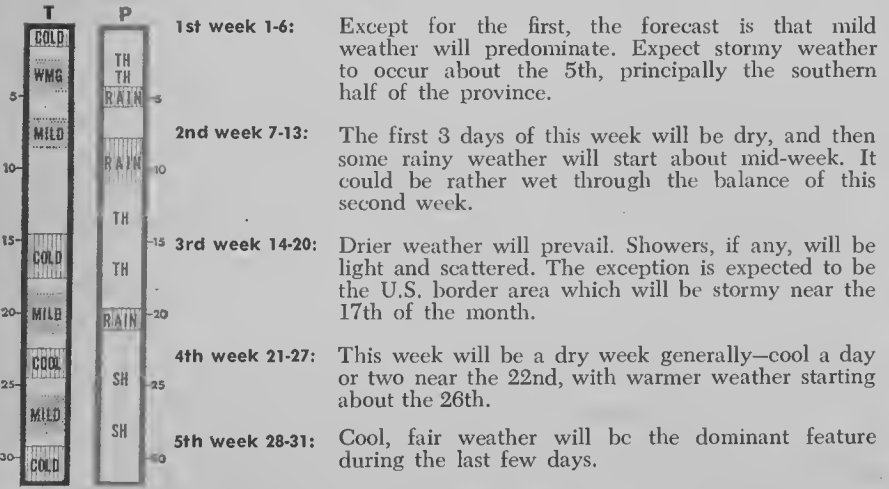
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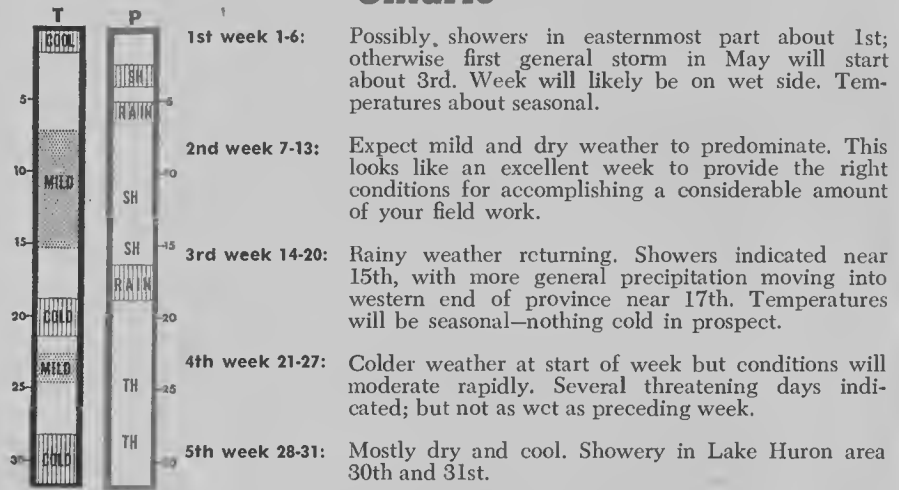


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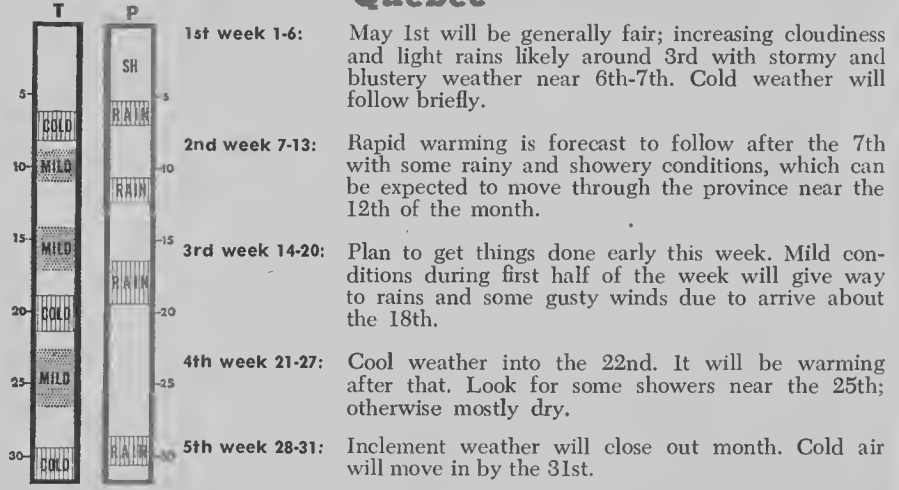


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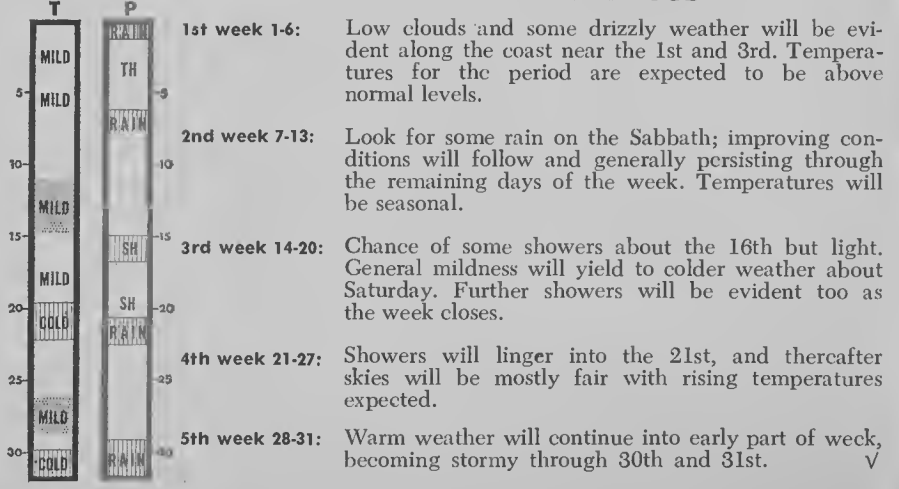
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Keep your soil fertile—to help ensure that the good earth will provide abundantly, good soil management is essential. Co-op fertilizers can play a vital part in successful farming.

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Editorials

Farm Policy Research Conference

A SIGNIFICANT event is taking place this month. Close to two hundred representative people from all parts of Canada, who together share the major responsibility for leadership in our agricultural life, are to meet in Winnipeg for a two-day National Conference on Farm Policy Research.

The group is to include senior officials of the federal and provincial departments of agriculture, the deans of the agricultural colleges, and representatives of professional agricultural associations. They are to be joined by officers of the major farm organizations, co-operatives, privately owned agricultural industries, and the Canadian Association of Consumers.

Their purpose will be to consider the establishment of an independent farm policy research organization, and how this can best be accomplished.

You might well ask what is so important about farm policy research that makes this high-level Conference necessary? What is all the fuss about? Isn't a considerable amount of agricultural research being carried on? Canada seems to have a large number of farm policies and programs. Haven't they been based on adequate study and investigation?

Well, of course, the simple answer is that the agricultural industry in this country, as elsewhere, is in difficulty and is likely to continue to be for some time to come. Obviously, the reasons for this predicament, and the most effective means of dealing with it, haven't been properly established. In other words, there is a serious gap in our knowledge. It is not that society doesn't want to resolve the farm problem; it doesn't have the complete answer. Thus it can be concluded that, among other things, more research is needed.

BUT what kind of research? Canada has had a useful agricultural research program going on for many years. Since the end of World War II, it has been expanded and improved. However, this research effort, which costs in the neighborhood of \$40 million annually, has been almost entirely devoted to the discovery of new and improved technologies in the field of farm production. And while this has been a material help in bringing about agricultural and industrial development; in keeping our farm products competitive at home and in the export market; and in providing abundant supplies of high quality, low-cost foods for domestic consumption—the farm problem during the past decade has become relatively worse.

What has happened is that we have concentrated our research dollars on the biological and physical sciences, almost to the exclusion of the social sciences. Reliable estimates indicate that less than 5 per cent of the agricultural research dollar is being spent on the economic and social problems of the industry. This has resulted in a technological explosion which has caused hardship for many within the industry, because the impact was neither fully anticipated nor adequately prepared for. There is deep concern over this situation in many quarters, and a widespread conviction that the only course to follow now is to correct the imbalance that has arisen in the research effort. A stepped-up farm policy research program is definitely required if new ground is to be broken on the policy front, and effective programs are to materialize.

SOME people may believe Canada has a well-rounded set of farm policies and programs on the statute books already. This may be true to a degree, or at least to the extent that some of them appear to be aimed in the right direction. We would be the last to belittle the good intentions and the progress made to date. However, we submit in too many cases they represent expedient measures designed to relieve the pain, rather than cure the patient. Frequently, policies have been adopted in a hurry to meet short-run crises. Often as not such policies, once on the statute books, have been maintained year after year and only adapted to meet changing conditions.

But whether short- or long-run, agricultural policies for the most part have been dependent on trial and error procedures for the degree of success they have enjoyed, rather than based on scientific research. It is hardly surprising, therefore, that several major arms of our farm policy today, from state-marketing of grain on down through the farm credit, crop insurance and price stabilization programs, are in trouble of one kind or another. They, too, require additional policy research if they are to become fully effective in achieving their stated objectives.

There is still another problem area. Agriculture doesn't function in isolation. Policies planned and executed to assist other sectors of the economy can have important implications for the industry. Such policies as those advanced in the fields of trade, transportation, immigration, business and banking come to mind in particular. The impact on agriculture of policies in these sectors also needs the rigorous examination of a research agency.

Off to a Good Start

THE much publicized legislation to provide for the rehabilitation of agricultural land and the development of rural areas in Canada has been introduced in Parliament as Bill C-77. It received first reading on March 23. Minister of Agriculture Hamilton now plans to take it to the provinces and the farm organizations to obtain their opinions as to whether it is broad enough to achieve the purposes for which it is intended. The Bill will then be brought back to the House of Commons with the hope of passing it at the current session.

The Federal Government is to be commended for initiating this measure; for the wide scope of activities it embraces; and for the sound approach it is taking to assure the co-operation of the provincial governments and the farm people the measure is designed to help.

Bill C-77 follows closely the outline of the Government's intentions presented by Mr. Hamilton at the resolution stage in January, and which were reported upon fully in our February issue. Essentially, it authorizes the Minister of Agriculture to enter into agreements with the provinces covering three types of joint undertakings. These are: (1) projects for the more efficient use and economic development of marginal or submarginal agricultural lands; (2) projects for the development of income and employment opportunities in rural agricultural areas, and for improving standards of living in those areas; and (3)

YOU may wonder why existing agencies cannot simply be expanded to fill the policy research gap? Why, in fact, is a new independent agency required for this purpose? There are several reasons. In the policy field, unlike the natural science field, the results of research can be controversial and, at times, embarrassing to the political party in office. Economic and social research by government personnel is confined, therefore, to serving the needs of the current government. Farm policy research directed by farm organizations or private business runs the risk of being suspect, because vested interests are involved, and therefore the findings could be unacceptable to the general public. This leaves only the universities. Unfortunately, they have been so handicapped for lack of funds, facilities and personnel that they have been unable to undertake any broad research program in the farm policy field. Larger appropriations and increased staffs in the universities would improve this situation, but are likely to provide only piecemeal efforts of an incomplete and unco-ordinated nature.

Under these circumstances, it is entirely logical to propose that a new, independent agency be set up to be responsible for initiating a substantial body of farm policy research, and for co-ordinating the work of all the agencies involved. And since none of the agencies can perform this function on its own, it is also logical to propose that governments, farm organizations and private business interests be jointly responsible for financing the undertaking. Such multiple support would spread the costs, and at the same time help to ensure the independent nature of the work to be done.

While policy research cannot guarantee to provide pat answers to the farm problem, the increased knowledge and understanding it can create, can be a decided advantage to policy makers and lead to further economic and social advancement. The research gap in the farm policy field is a serious one. Whether it is to be filled in the near future will depend in large measure on the action taken at the Winnipeg Conference. We will be watching the outcome with considerable interest. V

projects for the development and conservation of water supplies for agricultural purposes, and for soil improvement and conservation that will enhance agricultural efficiency.

Under each of these three types of projects, provision is made for cost sharing arrangements, and for the Minister to initiate programs of investigation and research to guide program development. The Bill also authorizes the Minister to establish such advisory committees as he deems necessary, and declares that no agreement made under the measure shall have any force or effect until Parliament appropriates the money stipulated in the agreement as the Federal Government's share of the cost.

The striking thing about this legislation is the high degree of co-operation required on the part of the provincial governments if it is to succeed. We would hope that two things might happen: First, that the Federal Government will be generous in the cost-sharing arrangements, because financing is likely to be its major contribution; and, secondly, that the provincial governments set aside political differences where these exist, and accept this measure as a challenge to shift the emphasis from production to adjustment in their extension and land use programs. Frankly, we have high hopes on both counts. It is widely recognized that the range of the proposed activities which this legislation will make possible, if properly developed, can do much for economic and social betterment in rural Canada. No government or community can fail to welcome the measure and do its utmost to make the best possible use of it. V

New to Canada for 1961 from FRANCE

HUNDREDS OF GIANT STRAWBERRIES

From a **SINGLE** Plant

The most vigorous producer in France. Tasty Berries the Size of HEN'S EGGS. One or two berries slice into a plate full. Everbearing—produces from spring until frost.

by
Bob Deutsch

I'm going to tell you about the most amazing strawberry plant in France. A plant that produces berries so large that tourists take pictures of them. Berries that are actually the size of hen's EGGS. Imagine . . . a plant that produces rich, red, tasty luscious berries the size of hen's EGGS—and produces hundreds of these giant berries on each plant. A strawberry plant that produces not just 1 crop a year, but is **EVERBEARING**—produces from spring all summer long until the first killing frost. I've seen this plant produce with my own eyes.

I first saw these huge strawberries at a French fruit store . . . saw tourists taking pictures of these fantastic EGG sized berries . . . was amazed at their fantastic size. Through the French Minister of Agriculture I finally located the source of these giant fruits and visited the fields where they are grown. There, in a small town was a huge field of these plants producing giant berries for market. **AND EACH PLANT WAS PRODUCING HUNDREDS OF THESE GIANT FRUITS. IMAGINE! A PLANT THAT PRODUCES GIANT EGG-SIZED STRAWBERRIES AND PRODUCES HUNDREDS OF THEM ON EACH PLANT.**

I contracted for as many of these plants as the grower was

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of the French Court testifying to the fantastic berry size and producing ability of this plant.

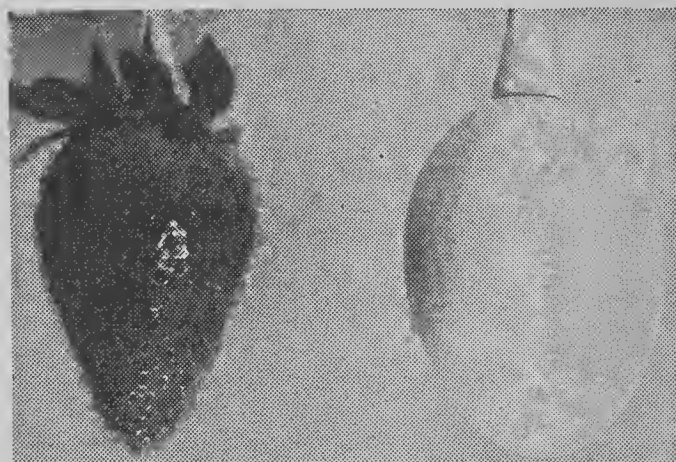
Start Picking Berries This June Until November

You'll have more fruit per square foot than from any plant you've ever seen. Delicious berries, rich red berries, **GIANT** firm berries . . . berries by the hundreds.

Now available to home gardeners in Canada the greatest development in **EVERBEARING** strawberries in years — **PARIS SPECTACULAR**. We ship the finest grade, government inspected plants. Plants with strong, well developed crowns and established root systems. Plants that will have beautiful foliage of dark green leaves covered with magnificent flowers which produce the tremendous crop of **GIANT BERRIES**, never before seen in an **EVER-BLOOMING PLANT**.

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Unretouched photograph shows actual size comparison of amazing new giant Paris spectacular strawberry

It's true! **PARIS SPECTACULAR** strawberries grow big as hen's eggs. Even more astonishing is the fact that each plant produces **HUNDREDS** of these delicious, **GIANT** strawberries . . . produces berries week after week from June until frost.

Read the amazing facts on this page and learn how you can grow **PARIS SPECTACULAR** in your garden this summer! Be the first in your neighbourhood to grow these truly spectacular strawberries. Surprise and delight your friends and neighbours by serving these honey-sweet, giant strawberries this summer.

OFFICIAL REPORT OF INQUIRY
At the moment of examination this plant was bearing fourteen (14) red fruit the size of a small hen's egg, and about one hundred blossoms and small fruit in the formative stage. Examination revealed that at least one hundred and fifty (150) strawberries had been picked from this plant.
Based on the foregoing facts we drew up this official report of inquiry which has full legal weight for the purpose for which the petitioner requested it.

Roger Rassinier, Bailiff of Court of Justice, CAEN (Calvados) Republic of France.
In witness whereof:
I certify that the foregoing is a true and correct translation of the attached bailiff's report.
Antoinette Mancus, Official Interpreter, Supreme Court Second Judicial Department, King's County, N.Y.



When the present supply is gone there will be no more this year. You can get **PARIS SPECTACULAR** only by answering this ad. It is sold on a complete guarantee of satisfaction.

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**3 plants \$2.95
6 plants \$5.00
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Yes, I want to be among the first in my neighbourhood to have **PARIS SPECTACULAR**. You guarantee that this year **PARIS SPECTACULAR** will produce **HUNDREDS OF BERRIES** from each plant . . . that berries will be **LARGE AS HEN'S EGGS**. That **PARIS SPECTACULAR** is **EVERBEARING**, will produce from spring until frost. That if I'm not completely satisfied in every way you will replace the plant **FREE**.

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NAME _____

CITY _____ **ZONE** _____ **PROV.** _____



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**COMBINE-ATTACHED
BALER**

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—Send information (specify model.....)
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apply a coat of **PENTOX** before you paint
WOOD PRESERVER

- Makes wood last 3 to 5 times longer
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- Costs less than primer coat of paint it saves

For fence posts and wood in contact with the ground—use Osmose Fence Post Mixture


OSMOSE WOOD PRESERVING COMPANY OF CANADA LIMITED

GUIDEPOSTS

UP-TO-DATE FARM MARKET FORECASTS

HOG PRICES will remain fairly attractive this fall. Quality premium of \$3.00 for Grade A is worth aiming for and could provide icing for what appears to be a favorable year.

POTATO PRODUCERS, a word of caution: prices could be uncomfortably low this fall unless spring plantings are held down. You may be in an expansive mood after two satisfactory seasons and the urge to increase acreage is tempting. However, market prices must drop sharply to move even a small increase in supplies.

DURUM WHEAT growers plan a 70 per cent expansion this spring. This sounds like a lot, but most bins are empty and there should be no trouble handling an increase of this size.

BREAD WHEAT PLANTINGS may decline a small 2 per cent this year. Even with a relatively good export year, excessive supplies are still with us. A further cut in acreage, especially if you can find another crop to grow, would be a wise course.

LONG TERM CATTLE OUTLOOK is much brighter, signified by the recent downward revision of the U.S. cattle inventory (based on the 1959 Census count). The biggest drop was in beef cow numbers rather than market-ready stock. Result—prices of breeding stock have shown unexpected strength.

OATS ACREAGE is expected to increase 7 per cent. This looks like a smart move for feed and fodder insurance considering the dry subsoils in Western Canada. Hay yields there are almost certain to be less than last year's and a drought-forced run of cattle marketings would be expensive.

FLAXSEED PRICES are now entering the "weather market" period. Our intentions to increase plantings are offset by U.S. intentions to decrease, and, in both countries, dry conditions now prevail so expect some sharp price fluctuations.

NEW UNITED STATES FARM PROGRAM for feed grains will affect our outlook for oats and barley, but probably not for a year or two. Idea is to give higher support prices for reduced plantings, which should bring supplies more in line with demand. Until this works (and if it works) subsidized excess stocks will likely be forced onto world markets at very competitive prices.

RAPESEED PRICES should remain fairly strong through the early fall months. The key to prices then will be the size of the crop and the level of United States support prices for soybeans. Their acreage is expected to increase sharply, but supplies will be very short until the harvest in late fall.

What's Happening

MEASURES TO COMBAT POSSIBLE DROUGHT

Senior officials of the federal and provincial departments of agriculture met in Regina in mid-March to consider measures which might be taken in the event of continuing drought on the Prairies in 1961. Moisture reserves in the area are considered to be abnormally low. Unless good rains are received, farmers will face a serious situation in relation to hay and pasture crops, and water supplies.

The meeting recommended farmers should take the following steps to meet a possible emergency situation:

- Seed oats on summerfallow to secure supplies of forage and pasture.
- Avoid seeding stubble land. In addition to poor crop prospects on stubble land, grasshopper outbreaks are forecast for much of the area.
- Carefully preserve stubble and trash cover on fields to be fallowed, and avoid the use of disc implements to help prevent soil drifting.
- Consider using available pasture for breeding stock, since pasture land will be in short supply. Calves and yearlings could be put in dry lots for finishing on surplus grain.
- Conserve stock watering supplies, because of the expected light spring run-off.
- Protect and preserve existing stocks of hay.

The Regina meeting warned that it is doubtful if fodder supplies could be found and moved in the event of widespread drought, and indicated farmers would need to take the prime responsibility for providing their own feed requirements. ✓

ONTARIO AND QUEBEC MEET ON MARKETING

Closer co-operation between Quebec and Ontario in the field of marketing farm products is in the offing, following a meeting between the two provincial ministers of agriculture.

Hon. W. A. Goodfellow, after conferring with the Hon. Alcide Courcy, stated that: "During our discussions it was evident Mr. Courcy and his Department were just as eager and willing as Ontario to attempt to synchronize agricultural marketing policy and methods so as to put producers of both provinces in the strongest possible marketing position."

The Ontario minister said there was complete agreement that there was no advantage to one province accepting lower producer prices for a particular product than might be received in the other. Mr. Goodfellow thought it desirable that some plan be devised so similar producer price structures and conditions of sale could prevail.

Regular contact is to be maintained between the two ministers so that they can work together on material problems. ✓

FARM INCOME ROSE IN 1960

Total net farm income in 1960 has been estimated by DBS to be \$1,352 million. This was a rise of about 12 per cent from the corresponding 1959 total of \$1,206 million, and also an increase of 6.5 per cent over the 1955-1959 5-year average figure.

Gross farm income in 1960, which includes cash income, income in kind and inventory charges, amounted to \$3,245 million or an increase of 5 per cent over the 1959 total.

Cash income in 1960 was slightly lower than in 1959. On a commodity basis, the more significant reductions in cash income between the 2 years were recorded for barley, flaxseed and hogs. The more important gains were registered for cattle, calves, potatoes and tobacco.

During 1960 there were increases in farm-held inventories of both grains and livestock. These increases reflected an increase in grain production over the previous year, and a continued build-up of Canada's cattle population, which more than offset smaller hog numbers.

Income in kind, which is the value of farm products consumed in the farm home, along with rental value of the farm home, was also higher in 1960 than a year earlier. ✓

UGG PURCHASES MORE FACILITIES

United Grain Growers Limited has purchased the physical properties of Canada West Grain Co. Ltd. These include a seed plant, feed mill and elevator in Edmonton; five country elevators in the Peace River district of Alberta; two seed cleaning plants and a warehouse elsewhere in Alberta; and, a seed plant and warehouses in Winnipeg. Transfer of properties is to take place August 1.

J. E. Brownlee, Q.C., president of United Grain Growers, said the purchase will permit the Company to establish itself in the seed and associated businesses. The officials and staff of Canada West are expected to remain with the organization. ✓

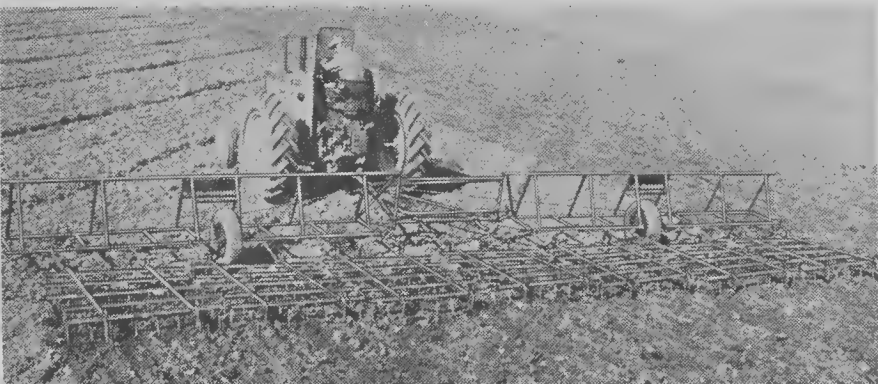
For report on changes in the Ontario Producers' Hog Marketing Board see page 87.

INTENDED ACREAGES OF FIELD CROPS FOR '61

DBS reports that, on the basis of intentions at March 1, Canadian farmers plan a 1 per cent increase in all wheat acreage this year. This increase is due mainly to the sharp rise in durum acreage—from 833,000 to 1,501,000 acres — or an expansion of 70 per cent.

Other crops showing increases, with the percentage change from last year in brackets, are as follows: oats (Please turn to page 87)

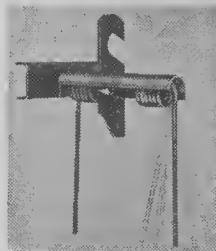
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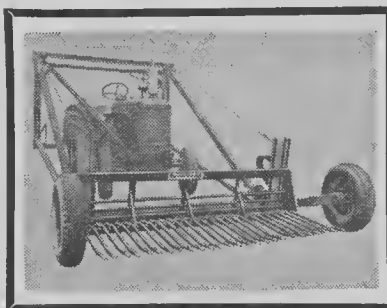
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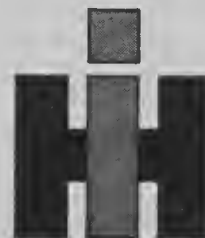
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INTERNATIONAL HARVESTER

WHY? Production Control in Agriculture

With the conviction that everyone concerned with agriculture is going to hear a lot more about production control, we invited Dr. J. C. Gilson to prepare a series of three articles to probe into the why? who? and how? of the topic

by J. C. GILSON

ACCORDING to the Greek legend, everything that King Midas touched turned into gold. Canadian farmers also seem to possess the Midas touch. Everything that they have touched recently has tended to turn into surpluses. This has caused many people during the last decade to shift their thinking from an emphasis on the demand side of the farm problem to a consideration of marketing quotas and production control.

The suggestion is made in farm circles that we should make a more serious attempt to legislate scarcity, since we apparently cannot find a satisfactory way of living with abundance in agriculture.

But are farm people in Canada ready to accept the discipline and regulation that must necessarily go with a policy of production control? And if they are, who should do the controlling — co-operatives, producer marketing boards, the government itself, or some combination of these three methods?

Indeed, will a policy of scarcity and production control provide an answer to the farm problem in Canada? Is this an effective method of reducing surpluses and overcoming the price-cost squeeze? Can a policy of production control be reconciled with Canada's position as a major exporter of agricultural products? Would a policy of widespread production control in agriculture create even more problems than it would solve?

These are some of the questions that need to be examined in detail before one can pass judgment on a widespread production control policy for agriculture.

Few will disagree that we have still not found a satisfactory way to provide Canadian farmers with adequate prices and incomes, and at the same time prevent these higher prices and incomes from becoming an incentive for the creation of costly surpluses. Indeed, whether Canadian farmers should reasonably expect to receive higher price supports for their products and also have unlimited freedom to produce, is a question that deserves careful study.

WHY PRODUCTION CONTROL

THE previous Federal Liberal Government was reasonably successful in avoiding the accumulation of burdensome surpluses in the operation of its Agricultural Prices Support Act. While part of the success was due to a relatively strong post-war demand for farm products, one important reason was the constant attempt to keep the price supports at a "non-incentive" level. As the price-cost squeeze worsened between 1951 and 1957, however, it became evident that the "non-incentive" price supports were not a completely satisfactory method of dealing with the persistent decline in net farm income.

The Conservative Government replaced the Agricultural Prices Support Act with the Agricultural Stabilization Act in March 1958, with

the idea of increasing farm income in Canada. One of the first commitments of the new government at that time was to raise the price supports on several farm commodities. It did not take long to realize, however, that the higher price supports were contributing to surpluses, not only because of the incentive to increase production, but also because of the discouraging effect on consumption. Embarrassing surpluses began to appear in eggs, skim milk powder, butter and hogs. It was shortly after this that the Government resorted to somewhat lower price supports, deficiency payments and quotas on hogs and eggs, in an attempt to prevent the further accumulation of costly surpluses.

The basic dilemma in Canadian farm policy, then, appears to be this: If price supports are set at a level high enough to come to grips with the problem of the price-cost squeeze, an incentive exists for the creation of unwieldy surpluses. If the price supports are set at non-incentive levels, or at levels where demand and supply are in balance, there appears to be no adequate redress against the chronically declining income position of the Canadian farmer. Does this mean that farm people are cornered between the proverbial devil and the deep sea? Or is there some other approach that will give us the best of both worlds? In short, is production control the answer?

In my opinion, some degree of production control appears inevitable if Canadian farmers continue to press for price supports above that level at which available supplies can be cleared from the market. And there is little reason to believe that Canadian farmers will slacken their demands for price supports in view of the persistent rise in the costs of the things which they have to buy. Whether, of course, production controls can be made to work in practice, and whether Canadian farmers are actually ready to accept the loss of individual freedom that must necessarily accompany a production control program, are open to question. There does not appear to be any clear opinion on the matter. Some farm groups advocate: Production control if this is necessary to achieve higher price supports. Other farm groups contend: Production control only if the control is vested in the hands of the producers themselves.

CANADA-U.S. EXPERIENCE

UP to the present time Canadian farmers have really had very little experience with policies of extensive production control. It is true that fluid milk producers, sugar beet growers and producers of many specialty crops have a limited outlet for their products. But most of these same producers also have alternative ways of using their farm resources. It is also true that the present hog producers in Ontario must market their hogs through the Ontario Hog Producers Co-operative. But this



J. C. GILSON

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is not production control. It is a form of control over available market supplies. Some will argue that the marketing quotas on grain sold through the Canadian Wheat Board are a form of production control. To some extent this may be true. For the most part, however, the grain marketing quotas are really a formula for rationing limited storage space among western Canadian grain producers.

By contrast, production control has long been an integral part of farm policy in the U.S.A. There has been much debate during the last 8 years in the U.S.A. as to whether production control should be increased or decreased. Mr. Benson, the Secretary of Agriculture under the former Eisenhower administration, argued that American farmers were willing to take somewhat lower price supports in return for somewhat greater freedom from government intervention and production controls. The shift from high, rigid price supports to a policy of flexible parity prices in 1954 was an attempt to free American farmers from excessive government control.

During the American election campaign last fall, even greater production control was promised farmers by the Democrats. Whether the present Kennedy Administration will follow up its pledge will not be known, with certainty, for some time.

After 28 years of experience in the U.S.A. what can be said about production control in agriculture? The answer is not conclusive. Some say that the \$8 billion worth of surplus commodities presently held by the U.S. Government would have been many times worse had it not been for such policies as acreage controls, marketing quotas and the soil bank. Others contend the surpluses could have been avoided if the price supports had been set at a reasonable level. One critic of farm policy in the U.S.A., Professor T. W. Schultz, has observed:

"Acreage allotments and the soil bank have been acceptable to farmers as a formula for distributing some government payments

but not as controls to reduce farm production. Whenever these controls have been pressed to a point where they might have curtailed total production, they have become unacceptable politically."

Before the feasibility of a production control policy for Canadian agriculture is analyzed in detail, we need to examine the primary objectives of farm policy, and to note the alternatives to production control. We must be clear as to what a policy of production control is supposed to accomplish.

FARM POLICY OBJECTIVES

MUCH of the confusion and conflict in agricultural policy at the present time may be attributed to the lack of a clear understanding of the objectives that are to be achieved. We have to know where we want to go before we can decide the best way of getting there.

While one could list a great number of objectives for agricultural policy, actually four major goals are of primary concern to farm people. These include: Production efficiency, price and income stability, adequate price and income levels, and a rising social standard of living.

Production Efficiency. The goal of production efficiency is deeply rooted in the philosophy of the departments of agriculture, the agricultural colleges, the agri-business community and certainly among the farmers themselves. There has been a persistent drive to increase yields, to increase the size of farm business, and in general, to provide low-cost food to Canadian consumers.

It has become difficult lately to reconcile the objective of increased production efficiency with the nag-

ging surpluses which have appeared for some commodities. Consequently, during the last decade, we have unwittingly slighted production efficiency by the continual stress on over-production. We must not forget, however, that Canadian farmers are almost sure to face greater competition in the years ahead. We need only mention the growing efficiency of farmers in the European Common Market countries, and the competition that dairy farmers now face in margarine, to illustrate the need for continuing efficiency in Canadian agriculture.

A farm policy that is to be sound in the long run must somehow accommodate the objective of continued production efficiency.

Price and Income Stability. Few other industries can be compared to agriculture in terms of the high degree of risk and uncertainty involved. Various measures and policies have been used in an attempt to give farmers greater stability of prices and incomes.

Farmers themselves have sought greater stability through diversification of their businesses. They early turned to marketing co-operatives in the attempt to achieve orderly marketing and price stability. Government legislation has also been important. One of the original objectives of the Canadian Wheat Board was greater stability of grain prices. The Prairie Farm Assistance Act in 1939, and more recently, the crop insurance legislation, were designed primarily to build a more stable base for Canadian agriculture. The present Agricultural Stabilization Act is really designed to stabilize prices, not raise prices as some believe.

Adequate price and income level. While Canadian farmers have long been interested in price and income stability, the goal of adequate prices and incomes has become particularly important within the last decade. Attention is being centered increasingly on such problems as the price-cost squeeze, fair share of the national income and the farmers' declining share of the marketing margin. Farmers are becoming more concerned about the level, than they are in the stability, of their prices and incomes.

Rising social standard of living. While the present discussion is primarily concerned with the major economic objectives of farm policy, one cannot ignore the importance of the broader social goals of agriculture. Perhaps just as important as the goal of parity income is the objective of parity of social standards of living between urban and rural people. A farm policy would not be complete unless it recognized such important social goals as adequate education, health services, recreational facilities, and security for rural people.

THREE MAJOR WAYS OF RAISING FARM PRICES

HAVING examined the four primary goals of farm policy, where does production control fit into the picture?

Production control is basically a technique for raising prices and

incomes. It can be used in conjunction with high price supports to prevent the occurrence of burdensome or unwanted surpluses; or it can be used to restrict output in order to raise prices to a satisfactory level. In most non-farm industries production control is used to enforce or to maintain a given level of prices. In agriculture, by contrast, production control has been used mostly in conjunction with government price support policies to prevent the high price supports from creating surpluses.

The feeling is growing in Canada, however, that production control, exercised by farmers themselves through marketing boards, should be used to enforce and maintain adequate prices. This would eliminate the need for direct government intervention in agriculture, or, at least, with respect to certain commodities.

Now let us examine the alternative methods of raising farm prices and incomes. In this way we can properly assess the pros and cons of production control as an integral part of farm policy in Canada.

There are three principal methods by which farm prices and incomes may be increased: By expansion of demand; by direct price and income payments; and by supply reduction and production control. Space does not permit a detailed discussion of each of these. However, a few highlights will be listed to permit the reader to see production control policy in perspective.

Demand Expansion Policies. Various methods may be used to expand the demand for food products in an attempt to increase the prices received by farmers.

1. Expansion of food demand in the domestic market through such measures as: expanded immigration and population growth; rising levels of income; subsidized food programs for school children, old-age pensioners and the unemployed; food grants to charitable institutions.

2. Expansion of demand in the export market: gifts of food to underdeveloped countries; subsidized commercial farm exports; sale of food for foreign currencies; long-term food loans; international food bank.

3. Diversion of farm products to industrial uses.

4. Government purchase and storage: this is valid only for the short run.

Direct Price and Income Payments. In this case, price and income payments are made directly to farmers. Examples include such policies as: present deficiency payment programs for eggs and hogs; direct price payments of 25 cents per cwt. by the government on all milk sold for manufacturing purposes; income payments such as the acreage payments to western grain producers; indirect price and income payments such as the freight subsidy on feed grains shipped to Eastern Canada.

Supply and Production Control. It is important at this point to dis-

tinguish between supply and production control. We will define supply control to mean market control over the supplies of farm products that have already been produced. Supply control is primarily concerned with the orderly flow of available products to the market over short-run periods of time. Production control will be simply defined as the prevention of production, and is usually of more importance over long-run periods of time. Various methods may be used to achieve both supply and production control.

- **Supply control:** Examples include such programs as government purchase and storage, and marketing quotas. Up to the present time co-operatives and producer marketing boards, as well as the government itself, have been primarily concerned with supply control.

- **Production control:** Examples include such programs as marketing agreements, contract production, acreage allotments, and such programs as the Soil Bank in the U.S.A.

Other programs that may be included under both supply and production control are such policies as tariffs, and direct and indirect embargoes on the inward flow of foreign agricultural products.

Of the three alternative policies that may be used in raising farm prices, which policy is best adapted to the conditions of Canadian agriculture?

Some insist that talk of production control in agriculture at the very time that a large part of the world's population is suffering from hunger and malnutrition is irresponsible and morally absurd. Others argue that farmers should do what many industries do when surplus production begins to weaken their prices—simply cut production. And still other people argue that a two-price system (deficiency prices) is the only farm policy that makes economic sense—have one price (support price) that gives the farmer an adequate return, and let the other price (free market price) clear the market of current production.

Few will disagree that every possible attempt should be made to expand the domestic and export demand for agricultural products. This makes sense in a country where the agricultural industry constitutes such a relatively important part of the national economy. To curtail production anywhere short of that which could be exported and sold domestically at reasonable prices would be economic nonsense. If, however, surpluses and low farm prices continue after everything possible has been done to expand the market, consideration must then be given to the domestic aspects of our farm policy. It is at this point that a production control policy may have a role to play.

The next two articles in this series will deal with the following questions: Who should control farm production? How could a production control program be carried out, and what are the problems associated with it? V

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The White Scourge

A report on attempts to overcome salt problems in crop land and how they turned out

A FARMER seeing white deposits of salts on his land usually says he has an "alkali" soil. But the scientist makes a distinction between soils that are alkaline and those that are saline. Alkaline means a high percentage of sodium in the soil, while saline refers to salts predominantly other than sodium, such as magnesium and calcium. There are, in fact, more saline than alkaline soils in Saskatchewan and, as many know to their sorrow, this condition can cause endless trouble.

Salinity is closely related to rainfall and its effect on the ground water table. If the water table is raised, water starts to move upward to the surface of the soil. The parent material of the soil contains plenty of salts that are soluble in water, and the water can become saturated with them. Western Canada's climate, with its low humidity and high rate of evaporation encourages soil water to be drawn up into the air. This evaporation leaves behind a residue of salts at the surface, which seriously limits plant growth.

That outlines the problem but it doesn't solve it. It was at this point at which the soils department of the Indian Head Experimental Farm in Saskatchewan began its investigations of salinity and its possible treatments.

There existed a general recommendation that manure should be applied, as well as other types of organic matter including grass sod, to combat saline conditions. Experiments were arranged to include organic matter treatments. Then, to study the importance of plant nutrients, there would be fertilizer tests, since nutritional deficiencies are probably serious in highly saline soils.

The program also included the use of mulches to find the effects of water conservation on plant growth. This is important, because increasing the amount of water in the soil should decrease the effect of the salts through dilution. In addition to this, there were tests with synthetic soil structure improvers like krillium.

DURING 2 years of experiments the effects of treatments were checked on yields of wheat, and on chemical composition of soil.

In 1959, the soils at the test site were highly saline because the water table was high, following some years of above normal moisture. But 1959 was a dry year and so was 1960, with the result that concentrations of salts in the soil became only moderate in 1960. This meant that the treatments could be tested both under highly and moderately saline conditions.

With the high salinity in 1959, increases in wheat crop yields due to treatments were low. The increases were significant only for high rates of phosphate fertilizer, and for plastic and manure

WHAT'S BEEN LEARNED

- ◆ Crop yields can be improved in saline soils by fertilizers and manure applied at high rates.
- ◆ Such treatments cannot solve the basic problem. Yields may be improved but the salinity stays.
- ◆ Summerfallowing tends to increase salts in the top soil.
- ◆ Better natural drainage is the most effective means of reducing salinity.

mulches. In the case of the mulches the effect was mainly through water preservation, which diluted the salts and also made more water available for plant growth.

In 1960, with lower salinity, wheat yields on stubble were increased significantly by treatments of very high rates of nitrogen plus phosphorus in combination, while single nutrient or low rates of fertilizer application did not significantly increase yields of wheat. A 30-ton per acre manure application without fertilizer boosted wheat yields significantly, and yields went slightly higher when manure was supplemented by fertilizer. Plastic and manure mulches also increased wheat yields, as did krillium, which improves soil structure.

On summerfallow, during a 1-year experiment, increased yields were obtained from (1) high rates of nitrogen and phosphate fertilizers in combination, (2) manure with and without fertilizer, and (3) the plastic and manure mulches. However, the experiment showed that summerfallowing significantly increased the soluble salts in the top 6 inches of soil, as compared to continuous cropping (stubble). The increase in salinity due to summerfallowing was only slight, but it could accumulate over the years. Therefore, summerfallowing seems a very questionable practice in locations where salinity is a hazard.

FROM the yield increases due to treatments in 1959 and 1960, it can be assumed that the pronounced effect of manure on yields in saline soils is a combination of plant nutrition, soil structure improvement and moisture preservation. However, the return in crop yields on saline soils due to the treatments decreases with increasing soluble salt concentrations.

The most important result was turned up by chemical analysis of the soil. Analysis for the two seasons showed that there were no significant changes in the saline content of the soil due to the treatments, with the exception of a slight reduction due to krillium. It follows from this that

by HALO LUEKEN

soils specialist formerly at the Indian Head Experimental Farm, as told to

RICHARD COBB

treatments cannot solve the basic salinity problem. Yields may be improved but the salinity stays.

One farmer in eastern Saskatchewan decided to apply manure at a very heavy rate on a saline soil and left a non-manured area adjacent to it for comparison. The Indian Head soils department checked crop yields and the chemical composition of the soil for 3 years. In the first year, the heavily manured plot yielded as high as 70 bushels of oats per acre, while there was no yield at all from the unmanured adjacent area. Chemical analysis showed a distinct reduction in salts where manure was applied.

However, a slough close to the test site dried out during the first year and improved the natural drainage of the land. The normal upward movement of saline water to the surface was thus interrupted. The result of this in the following year was a reduction of salts in the unmanured area almost equal to that in the manured area. The trend to salinity reduction continued during the third year until there was no difference in the amount of soluble salts between the manured and unmanured areas. But the nutritional effect of manure improved wheat yield by about 12 bushels per acre even 4 years after application.

The conclusion to be drawn from this is that the improvement of the natural drainage was most effective in reducing salinity. So the answer to the problem is to deal primarily with the water table, and this can be done only by improved drainage. If the water table is not controlled, fluctuations in salinity will continue, depending on precipitation or the lack of it.

In many instances, tile drainage may be too costly even to be considered. So the farmer who aims to attack the basic salinity problem on his land must employ some method such as emptying the sloughs by interconnecting them with ditches and allowing excess water to run away. If he cannot drain the water away, he has only the temporary effects of treatments to rely on. V



Lueken at instrument that measures effect of drainage. Cans measure water applied in test.

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GET MORE FROM SPRAYS

by CLIFF FAULKNER

IF you stick a hand under the straw spreader of your combine, and get a lot of grain with the chaff you know you are losing money. You can see it happening and can do something definite about it.

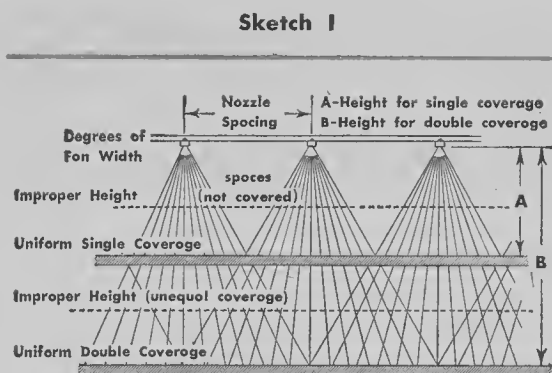
Losses caused by improper application of sprays (especially selective herbicides) can be just as real, but much harder to detect. You might notice your yields are spotty—a few bushels less per acre than expected, but you can't be sure what caused it. It could've been a cold season, not enough moisture; or the wrong fertilizer. Maybe the seed used had a poor germination rate.

On the other hand, it could also have been caused by an overdose of herbicide in some parts of the field. If you were spraying an insect infestation, perhaps some plants received less solution than others because of faulty sprayer calibration. The only way you can be sure these things aren't losing money for you is to see that your equipment is right before you start spraying.

Here are the essential features of a good spraying job as recommended by specialists in pest control and equipment designing:

Tanks (and other parts) should be of a corrosion-resistant material. The capacity of a tractor-mounted tank should be in keeping with tractor size. But what is even more important is the location of the tank where it can be mounted securely and operated conveniently. Attention should also be paid to providing an even distribution of the load on the tractor tires. For a trailer rig it is inadvisable to have a capacity of more than 200 gallons, and the trailer tires should be big enough to avoid excessive soil compaction or crop damage.

Pumps should have enough capacity for all rates you'll need for various spray jobs, plus some return flow for agitation. Use of the pump for filling the tank is also an important factor to consider. Mechanical agitation is necessary where a uniform mixture is hard to maintain. You can obtain good hydraulic agitation for heavy suspensions if 10 g.p.m. or more solution goes back to the tank for every 100 gallons of tank capacity.



[Courtesy Univ. of Manitoba]
This shows the correct height of boom for proper single and double cover, and results of improper boom height. Note that double coverage does not increase the quantity of spray applied per acre.

Filters that are easily removed for cleaning should be located between pump and boom, and at each nozzle outlet. Note that the first filter should be placed ahead of the pressure gauge, in order to give an accurate indication of pressure on the nozzle. If this is done, the pressure gauge will show also whether the filter needs to be changed or cleaned. In addition, both a suction strainer and a strainer for filling the tank are necessary accessories.

Controls. You need a pressure regulator with by-pass agitation, plus control valves for the boom and for filling your tank through the pump. A good pressure gauge is essential (machine vibration may put a strain on this, so check it periodically). A hand-gun outlet, equipped with pressure gauge, is worthwhile if livestock spraying is involved. A squeeze trigger control on the hand gun will cut spray waste.

BOOMS

Boom capacity should be sufficient to avoid an appreciable drop in pressure between the center of the boom and the ends. Compare the pressures by placing containers under the inner and outer nozzles. If there is a significant difference, it will likely indicate that the boom is too small.

Booms should be capped for easy cleaning. They should be mounted to allow for adjustments in height—16 and 14 inches would be safe lower and upper limits. Sketch I shows how two operating heights are effective. In some makes, nozzle angle can be varied by turning the boom.

As for the best type of field spraying equipment, the buyer will have a choice of suspended booms, stabilized booms, and the boomless nozzle or "jet" sprays. Experimental evidence to date indicates that the conventional boom-type sprayer, stabilized to prevent excessive horizontal or vertical whipping, will give the most uniform coverage of all. The correct method with stabilized booms and misapplication with unstabilized booms are illustrated in sketches II and III.

Suspended booms. Spray coverage is spotty when one of the wheels encounters a hole or rut, or rough ground causes a vertical whipping action. In the case of selective herbicides, this uneven application could cause significant yield losses.

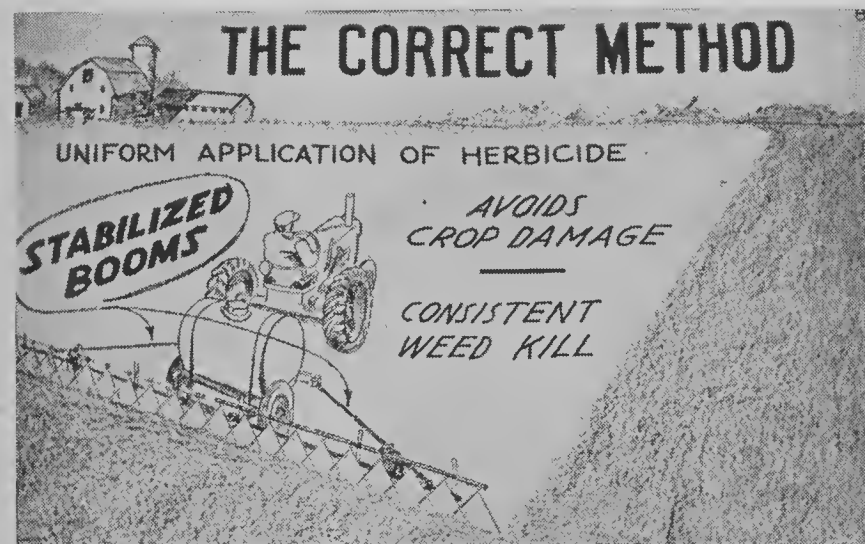
Stabilized boom types are the most practical machines by far. Horizontal swinging is minimized by radius arms to the front of the trailer. Vertical whipping is minimized by sulky (castor) wheels located near the boom ends. The booms are hinged at the trailer so the unit will operate on hilly land, and also to facilitate transport.

"Jet" sprays consist of a cluster of orifices or nozzles located at the rear of the trailer to send out a column of spray for several rows on either side. Spray pattern tests at the Texas Agricultural Experiment Station have shown that these don't do as good a job as boom types which have single nozzles directly over each row. In jets, there's a wide variation in droplet concentration and size from the nozzles to the outer edge of the spray.

Whenever these boomless nozzle sprays were used, yields were found to be lower in the outside rows where droplets were big. For one thing, larger drops don't stick to a plant as well as small ones. Overall yields were also lower than where a conventional boom-type sprayer was used.

Although these Texas tests were for insect

Sketch II



Sketch III





This is a boom supported by a castor wheel and braced to front of machine. Angle of nozzles is adjusted by hand.

control, the results would apply equally well in the case of herbicide sprays.

NOZZLES

Some makers say nozzles that emit either a hollow or solid cone of fluid provide more even coverage than those which give a level, fan-shaped spray, but cone nozzles are seldom recommended here. If you take a quarter and draw a series of overlapping circles on a piece of paper you'll soon see why. You just can't get good, even longitudinal coverage with a series of circles. Hollow cones give a heavier concentration of chemical where the circles overlap. Solid cones tend to spray more heavily in the circle's center.

In some fan types the pattern of spray tapers off toward each end, so that overlapping fans reduce these areas of heavy concentration found in the other types. This is the main reason Canadian agricultural authorities recommend fan-type nozzles, particularly in the case of selective

herbicide sprays. Even for spraying livestock, some researchers prefer a fan spray to a cone spray. Fans are said to lift the hair instead of fluffing it up, thus penetrating more quickly to the hide.

Nylon or Metal? Nylon nozzles will not rust, corrode or oxidize, and are said to be at least equal to metal nozzles in resistance to wear. One advantage cited is that they can be tightened by hand, eliminating the damage often done to metal nozzles by the use of a wrench. This wouldn't apply, of course, if you used metal "clamp-on" type nozzles, which don't need tightening at all.

SPRAYER CALIBRATION

Many agricultural chemicals are abrasive or corrosive, and some may be both. Check your pump by setting it at recommended pressure and measuring the by-passed liquid. Keep records and compare them from year to year. If the amount of by-pass is less than is needed for agitation, the pump should be replaced.

To check for nozzle wear, catch the discharge for 1 minute in a quart container and compare it with the capacity of the nozzle when it was new. Nozzles which vary widely from their rated capacity should be replaced. Don't operate with combinations of nozzles of different capacity and fan angle on the same boom; and don't fog your nozzles by using too high a pressure.

You can calibrate your sprayer by operating the machine over a

measured distance at the proper pressure and a known ground speed, as follows:

Fill your tank to a given mark. Spray at the usual pressure and speed for one-half mile in the field. Mark the throttle so that the speed is always set the same. Then find how much solution is needed to refill the tank to the original level. Multiply the number of gallons by



Guide photos
Spraying cattle against warble flies. This hand gun can be adjusted so the spray strikes animal at right-angle.

16½, and divide the result by the width of the sprayed swath (in feet). The answer equals the number of gallons you are applying per acre.

Example: 10 gallons used, swath width 33 feet.

$$10 \text{ gallons} \times 16\frac{1}{2} = 165$$

$$165 \div 33 \text{ feet (swath width)} = 5 \text{ gallons per acre.}$$

Chemical. It is equally important to know how much chemical must be added to water for spraying at the recommended rate. At 5 gallons per acre, it will take 200 gallons to cover 40 acres. If each acre requires 4 ounces of acid, then $4 \times 40 = 160$ ounces of acid will be needed. To obtain this amount of acid, with a mixture of 128 ounces acid equivalent per gallon, will require 160 divided by 128, multiplied by 4, which equals 5 quarts.

Suppose, after spraying, the 200 gallon tank has 20 gallons of liquid left in it. You can make the same calculation for the amount of chemical required for refilling by using 180 gallons as the base.

Field markers. To prevent overlapping of swaths when spraying, you should have a marker to line up your tractor. Some operators feel they can accomplish this by dragging a chain from a castor wheel. However, such markers don't entirely eliminate overlapping because these wheels are located some distance in from the boom's end. There are several good markers sold which run off at an angle, well clear of the swath. They indicate where your tractor should go on the next round, and operate much like minesweeping devices (paravanes) used by the Navy.

Remember, when you overlap or put on uneven spray patterns you alter the application rates. Some plants get too little, others get too much. If you are using selective hormone sprays, this could have a marked effect on yields. V

When you see worms... it's too late!

"Hygromycin... acts partly by blocking reproduction of the parasites... an ideal way to stop the worms before they do the damage."

PRESS RELEASE — UNIVERSITY OF WISCONSIN, DECEMBER 16, 1957



That purged worm you find has already gotten even with you. She's been slowly inching her way through your hog's gut for the past two months... growing to egg-laying maturity *on your feed* all the while. You got her, all right... but not before she got part of your profit. Worse yet: the millions of invisible worm eggs she laid are all around you... just waiting to trim off part of the profit from your *next* bunch of pigs!

Other products just interrupt the problem. **Only Hygromix in the feed controls it.** Hygromix is the only worm control method that *stops* worms from laying new eggs, kills two kinds of worms... day after day after day.



Makers of **STILBOSOL**® (diethylstilbestrol premix, Lilly)

(Canadian Distributor: Charles Albert Smith, Ltd.
356 Eastern Avenue, Toronto 8, Ontario)

**ELI LILLY AND COMPANY (CANADA)
LIMITED • TORONTO 8, ONTARIO**



Mrs. Abner Martin finds her household accounts an interesting hobby and a family record, too.



Music and reading are favorite family pastimes. Carolyn has a ready audience for a selection on her accordion in Elaine 19, Alf Dahlke (hired man), Keith 17, her dad, Dennis 10, Quentin 4, and mother.

DOES it pay you to raise your own potatoes? Mrs. Abner Martin's accounts show that it doesn't pay to raise the potato supply on Wintermar farm in West Montrose, Ont., busy as they are with the dairy herd, the laying flock and the forage crops. She counts strawberries, raspberries, peas, beans and corn among the most worthwhile family foods reaped from her garden.

Mrs. Martin's interest in accounting records dates back to an argument with her brothers while she lived at home. Her three brothers kidded her that girls cost more to raise than boys. To bolster her argument Mrs. Martin began keeping records—and lost when they showed that girls were a little more expensive!

Today Mrs. Martin can see at a glance the expense record of each of five Martin children. Her records show that 4-year-old Quentin's living costs are kept parallel to those for 10-year-old Dennis at the same age because of handed-down clothing. Clothing is one expense for which Mrs. Martin keeps the figures separate for each family member.

The Martin household accounts are kept under the following headings:

Groceries. Purchased food supplies averaged \$23.50 per week in 1959; \$24 in 1960. Mrs. Martin estimated a cost of \$525 for farm-produced food during 1959, basing milk cost on the surplus milk price. Cracked eggs, garden produce,

chickens and beef are other farm-produced foods. Each year Mrs. Martin singles out one food item for detailed accounting, just as she did with the potatoes. Bread cost the family \$92 in 1959. One year it was butter. "I can certainly see why people would use margarine as an economy over butter," Mrs. Martin says. "But we make our living from milk so I feel it's right that we should buy the butter. And anyway, we prefer butter."

One year the Martin men helped with an experiment to see if buying a pig would be a saving. Mrs. Martin doesn't think it was, but feels their pig was too fat when they bought it to be a good test animal.

Dry Cleaning. Total cost in 1959 was \$20.65. Mrs. Martin does her own spot-cleaning.

Household Equipment and Supplies. Materials lasting at least one year come under this heading. The amount varies from year to year, depending on whether any major appliances are purchased. Linens and dishes are listed in this group.

Household Repairs. This heading covers service costs for the household, and includes the lawn-mower which Mrs. Martin suspects should be charged to the farm operation.

Housebuilding. Such things as the porch, new steps and pipes for the furnace are recorded here.

Clothing. Clothing costs are listed separately for each family member. Mrs. Martin sews some of the family clothing and Elaine sews many of her own clothes. Good used clothing is sent to a relief agency and is listed as it's sent so that time won't be wasted looking for garments that have been given away. Clothing costs for the family in 1959 were as follows:

Mr. Martin\$144
Mrs. Martin150
Elaine194
Keith160
Carolyn146
Dennis70
Quentin45



Mrs. Martin spends a day or more of each week washing, sorting and crating eggs for market.

FARM FAMILY THAT'S TOPS

*Determination, hard work, skill
and a community spirit—these combine to make the
Abner Martin family a winner in Waterloo*

by GWEN LESLIE and DON BARON

Fuel. Fuel cost in 1959 was \$235. Mrs. Martin looks after firing the furnace which burns coal. "On a farm you have dust anyway from the men's clothing, so coal dust doesn't make much more work," Mrs. Martin says.

Hospitalization. Health care cost the Martins \$214 in 1959, including doctors, dentist, prescriptions, optometrist, and hospitalization.

Church, charity, pleasure, music lessons and records are itemized separately.

Books, Magazines and Newspapers. Reading matter is grouped together, cost \$61.51 in 1959. Purchase of new dictionaries will up the total for 1960.

Haircuts and Hairdos. These cost \$47.53 in 1960. "It probably should be more," Mrs. Martin says, "I don't have my hair done very often."

Plants, Seeds, Bulbs, Shrubs and Garden Supplies. The planting and care of the farm home grounds cost \$43 in 1959, \$74 in 1960.

Allowances. The children's allowances increase with their age. School meals must be bought from the high school children's \$2 weekly sum.

Paints, Paintbrushes. There's no need to wonder what you have on hand when the record shows the purchases for the year.

Schoolbooks and Supplies. This column totaled \$24.25 for 1959.

Wages. This heading covers household help, and amounted to \$5 in 1960.

Miscellaneous. With Mrs. Martin's extensive records, this is a much smaller total than it would be for many of us called to account for money spent over the year. It includes such things as the children's camp expenses.

"If women would just keep accounts up long enough, they'd find it so interesting they'd never quit." This is how Mrs. Martin feels about her household cost records. She takes the responsibility for the household planning and expenditures, as Mr. Martin does for the farm operation. The overall planning and major purchases are joint decisions. (Please turn to page 21)



Abner Martin is near at hand and ready with a word of advice for Carolyn and Keith on evenings spent training their entries in 4-H calf club competition. The Martins' busy life is a family undertaking.

WHEN neighbors, friends, and Holstein enthusiasts flocked to Abner Martin's Waterloo County, Ontario, farm one frosty night in February to pay tribute to a \$350 cow, they probably overlooked one thing. In setting a Canadian milk production record, this bargain cow had not only demonstrated her superiority, but she was helping to show that the family farm can still hold its own in a competitive and changing agriculture.

Abner Martin was raised in the hamlet of Conestoga not far from his present farm site at Winterbourne. When he graduated from public school, he was given a team of horses and put to work hauling gravel. He didn't shrink from the hard work, but to his ambitious way of thinking, the opportunities facing a teamster were much too limited. He had bigger goals in mind.

Martin is a mild-mannered medium-sized man, but he has a jut jaw and huge hands that suggest the determination and energy he brings to his purposes. And he soon set his goal in life. He wanted a farm of his own.

Encouraged by a local teacher, he went back to school briefly to improve his education. He enrolled in correspondence courses, turning his evenings to study. He got his farm too.

Then, last fall, he got one of the biggest surprises of his life. Waterloo County is one of Ontario's top farming areas, and when leaders were looking for the man to honor as the county's outstanding farmer, they turned to him.

Abner himself is too modest to even guess why he has been given such an honor. But talk to him, and the pattern emerges. He has played a big role in community affairs, taken an active part in farm organizations, and found time to plan his farm program carefully as well.

Martin served on the township council for 11 years, some of the time as reeve. He is a past president of the county Holstein club, and a

director of the national Holstein Association. He is a local director of the Milk Producers' Association. A year ago he took the lead in starting up a farm management association in the county, and he is its first president.

BUT, with all of these activities, he hasn't neglected his own farm. The production record of over 20,000 pounds of milk made by his 3-year-old cow last winter was the second record made in his herd in the past decade — proof that he knows how to handle and feed cows. However, he is more than a good livestock man. Eleven years ago, when economists at the Ontario Agricultural College were launching an accounting and management service, and were looking for farmers to take part, he was one of the first to sign up. He is still enrolled and he will tell you now that the key to successful farming is farm management.

"A good set of records will show how a farm program is going," he says. "It will almost show you the future in advance. It's like seeing a play shape up in a hockey game before it occurs."

In fact, one of the busiest places in his house, is the room that has become the office. It is equipped with a typewriter, filing cabinets and adding machine, and he keeps the records, and plans his farm program there.

It is a carefully prepared program too. On his 100-acre home farm, he grows 17 acres of corn for the silo. A 20-acre pasture field is divided into 7 plots so the herd can be grazed rotationally. This permits fresh grass to be kept in front of them all summer. He was one of the first farmers in his district to use a hay conditioner and he wouldn't be without one.

Careful planning is important, but this doesn't make the enterprise less of a family farm. "The children are a vital part of the farm operation," he explains. "They work hard, maybe harder



Rising costs squeeze Abner's balance despite bulk tank, larger herd. He foresees marketing changes.

than most farm youngsters work today. But they like farming better than most, too. I think they will have farms of their own in a few years."

MAYBE it's the excitement that makes them enjoy the farm. Take last summer for instance. A year previously, Abner had attended a cattle sale. He took a liking to a heifer and was surprised to buy her for \$350. She milked well in her first lactation. Last spring she freshened again and by summer it was apparent she was no ordinary Holstein. Her daily output was over 80 pounds.

To guard against udder damage, the boys began to milk her once between regular milkings. The flow of milk didn't let up and the possibility of a record arose.

On a family farm, it's difficult to justify taking time off to milk a cow three times a day in the hectic summer season. But when there are enthusiastic boys around, it's a different story. All last summer, nine-year-old Dennis brought her from the pasture to be milked that extra time. Excitement mounted so high that when he took sick for a few days, he couldn't be held back from a daily trip to the stable.

The cow completed the lactation in February, and didn't disappoint them.

ABNER MARTIN himself doesn't have the formal education that he would like, but no one who has met and talked to him could deny that he is an educated man today. His favorite hobby is reading, and he reads ravenously. He subscribes to farm papers and gets books that interest him. He makes it a point to attend farm meetings to keep himself informed, sitting in on discussions and talking to visitors and acquaintances. As a result, he has strong opinions on matters affecting agriculture.

Ask him about the present milk marketing situation, and he'll tell you it's the sorest point in the whole dairy industry today. He foresees big changes coming up in milk marketing too. "We must find a test for solids-not-fat in milk, soon, which can be brought into general use," he says. "Butterfat is no longer the most valuable part of the milk."

Martin believes there are quality problems to overcome. He would like to see higher quality standards enforced on milk going off farms. As to prices, he says dairymen can't expect consumers to pay more for milk than they pay now.

But while there are plenty of problems facing agriculture, Abner isn't one bit gloomy about the future of the family farm. He intends to keep adapting his own program to meet the times. The method has been too successful in the past to consider changing it now.



Martin boys help with chores before and after school. Custom work helped pay for this baler.



A champion cow is of vital interest to the whole family. Quentin, 4, prepares the cow for milking.

GALLOWAYS AT

STURGEON LANDING

by NORMAN BRAY



[Author's photo]

Mederic Poirier is seen here proudly displaying one of his young Galloway bulls.

MEDERIC POIRIER is proving that Galloway cattle can take it at Sturgeon Landing—one of Saskatchewan's northern frontiers. In a tiny settlement on the shores of Namew Lake, 25 air miles north of Cumberland House and near the edge of the Pre-Cambrian shield, this former river-boat operator has built up a herd of over 80 grade Galloways that thrive in the rocky lake country.

Black cows in sturdy corrals, and calves in sprawling sheds facing stacks of native hay, are a rare sight this far north. They proved to be the main industry at Sturgeon Landing when Dr. A. Godwin of the Canada Department of Agriculture and the author flew in to test for Bang's disease.

Sturgeon Landing is surrounded by water, trees, rock outcrops and large, flat marshes. The settlement is built around Mederic Poirier Enterprises. It is small and scattered with a one-room school and a handful of metis log homes, spread along a narrow channel in the lake. Mederic's log home, general store, post office, barns, sheds and corrals, make up the rest of the community.

Galloways are the chief product of Poirier Enterprises. However, the business has branched out to include a general store and fish agency. The latter handles catches of jacks, whites and yellow (pickerel) from Namew Lake. These are brought in by dog team during the winter. Sturgeon are caught and marketed in the summer.

POIRIER is 5'8½" tall and weighs 245 pounds. In his fifties, he's round as a barrel and solid as a bear. Known as the best soup maker and fish cooker in the country, he keeps a pot of soup on the stove and a welcome on his face for all who visit.

He is the proprietor of Sturgeon's most popular meeting place—the Post Office, and custodian of a Department of Natural Resources 2-way radio. Mederic is also contact man, confidant and friend of all the metis people, and key man for the northern officials who work in the area.

While Bang's testing progressed, he hustled about the farmstead like a dynamic bulldozer. He supervised the weighing, packing and loading of fish; handled mail and groceries; guided his woolly cattle out of the chute; exhorted his local cowboys who are naturally timid with excited cows; kept the soup hot; and told the D.N.R. officer about local people who wished to see him.

Mederic is convinced Galloway cattle are best suited to the local climate. It was 20 below when we drew blood samples, and we were forced to set up a heater outdoors to prevent them and our hands from freezing. But the Galloways didn't seem to mind a bit! In the summer, their shaggy coats offer more resistance to flies, he says. The cattle graze in summer among the unfenced marshes and lakes of the Sturgeon area where grass is plentiful. The slough grass produces hay of surprisingly fine quality too.

Operating a former Oblate mission farm which was deserted in 1953 after fire destroyed the mission's residential school, Mederic has cleared 125 acres. Most of this is seeded to oats. The farm is operated with a full line of machinery.

Watering places are no problem for the cattle. In winter they walk 50 yards to Namew Lake to drink through the ice.

He butchers all his own stock as long yearlings, and supplies beef to The Pas Indian School. "They buy all I raise," he says. "Hope I can raise enough to keep 'em supplied."

Gentle, with real concern for his livestock, Mederic calls them to feed like pets, and ensures there is adequate feed and facilities to maintain them. "If I'm going to keep cattle, I want to keep them right," he said. "So, I want to have lots of hay." Ranch hands were hauling hay from The Pas.

"If the spring is good," Poirier pointed out, "I've got lots of feed. But if it's late, I won't have too much and then we won't be able to haul it. What I need here is more broken land to grow feed and I'm going to do that." Thus far, he has seeded 45 acres to brome, alfalfa and fescue.

HIS background has fitted Mederic for a versatile life. He was born at St. Legourie near Montreal of Irish, Dutch and American descent. At 14 he worked in a Montreal munitions plant during World War I. When his elder brother

returned from the war, Mederic, then 16, came with him to Willowbunch, Sask., where a third brother had taken up a farm. Their parents joined them there later.

He worked on farms and ranches of French Canadian settlers in the Willowbunch-St. Victor areas. It was as a ranch hand on the Dupuis ranch at Willowbunch that he decided one day he would raise Galloways. Mr. Dupuis spoke often of the ruggedness of Galloways he had seen, and taught him the importance of good corrals and adequate feed.

The Dupuis ranch was interesting, but Mederic decided he needed to speak English and went to work for English farmer Ernest Tyndal of Fife Lake, to learn the language. As time passed, he worked for other farmers in the area and spent several winters employed in local blacksmith shops. Later he rented land at Landscape, Sask., and then homesteaded at Lisieux.

When drought hit in the 1930's, Mederic was asked to rejoin a blacksmith at his new shop in The Pas.

As well as a blacksmith, Mederic was soon in an ice business, cutting ice in the Saskatchewan River and supplying railways and the local hospital. It was at this time he first saw Sturgeon Landing.

The Oblate Fathers then had 20 acres broken on their mission farm at Sturgeon and grew successful grain crops. When they needed help at seeding time, Mederic was sent to do the job.

RIVER freighting was the next step in Mederic's path toward Galloways. He sold his ice business and bought a second-hand boat—the 40-foot *Agnes*. He built two barges, one powered, one towed. The outfit was butted tight in single file, and freighted down the river from The Pas to Moose and Cedar Lakes and up the river to Cumberland House and Sturgeon Landing.

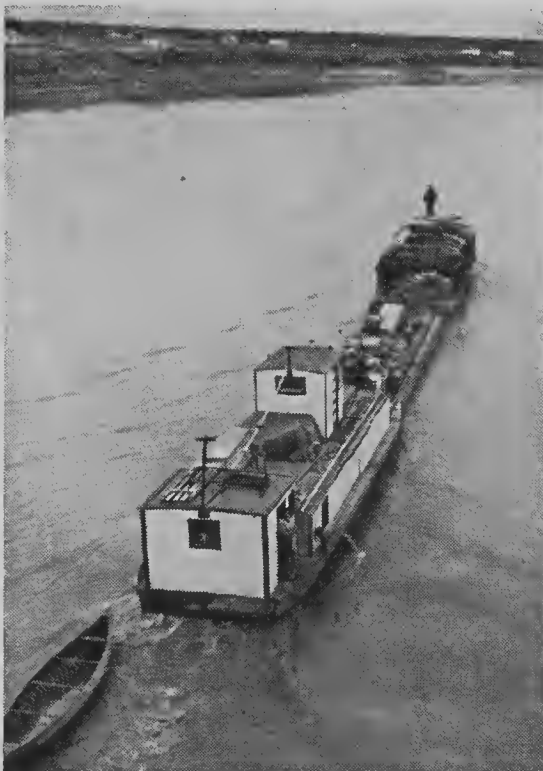
The success of the freighting allowed Mederic to buy his Galloways. Starting with a Galloway bull and cows of Holstein-Hereford ancestry, he leased 1,399 acres along the Saskatchewan River, 16 miles from The Pas. The new ranch developed well, but during the flood years of 1947-54 the Saskatchewan rose and Mederic's lease-holding was flooded. It was impossible to grow feed. Moreover, the expense of importing it and attempting to drain the land was taking all the freighting profits.

The Galloways, however, were not to go. Mederic looked for a new home for his herd when he gave up his Manitoba lease. The Indian School at Sturgeon had burned and the mission had moved the students to Manitoba. Hence, the farm he had seeded years before at Sturgeon was now lying neglected. Mederic chartered a plane, flew over the mission farm and looked at the uncut wild hay.

He made an agreement with the Oblate Fathers, came back with a load of grub, and put men to work cutting hay. In January 1955, he moved to Sturgeon Landing with 40 head of cattle. He bought a log shack and started the store.

Settled at Sturgeon, Mederic sold his boat and barges and concentrated on the Galloways. He has his fifth Galloway bull now, and except for an occasional white-faced calf and one red cow, his herd is now entirely woolly and black.

Keeping store, handling ice, blacksmithing and freighting may come and go, but Poirier will always have Galloways. He is proving the breed can take it as far north as men will settle. V



[Aurora photo]

River freighting enabled Poirier to buy Galloways, but he has disposed of these barges now.

One Year's Experience

Manitoba's venture into crop insurance is providing useful guidelines for its own program, and for other provinces and the Federal Government as well

by RALPH HEDLIN

MANITOBA has wrapped up a full year of experience with crop insurance, insuring the crops of 2,500 farmers—5½ per cent of the farmers in the province—for a total coverage of \$4,100,000.

With 1960 one of the really good crop years in the history of the province only \$91,000 was paid to the 175 farmers who suffered a crop failure and collected an indemnity. Total premium collections were \$256,000. The difference has been transferred into a fund that is held as a reserve against the year when severe losses reverse the 1960 relationship.

"Indemnity payments may have been low, but they weren't low for me," said William H. Hewitt of Fort Whyte. He rifled through a pile of papers on the kitchen table. "Sure, here it is," he said, picking up a paper. "I paid out a premium of \$58.93 and, after the hail hit my 83 acres of wheat, I cashed a crop insurance cheque for \$823.68. It didn't make me rich, but at least it was in the right direction."



Minister of Agriculture, Hon. Geo. Hutton (l.) presented second crop insurance cheque to be issued to Mrs. and Mr. Oscar Legace of La Salle.

Percy Ford, managing director of the Manitoba Crop Insurance Agency, reached for the paper. "You didn't get the biggest cheque by any means either," he commented. "The biggest was for \$4,400 and I'd guess that would help almost any farmer quite a bit."

The Manitoba Agency was the first to insure crops in Canada. It started operations in 1960 in four test areas. The instruction from the Manitoba Government was to insure crops in selected areas and determine the general feasibility of crop insurance. As a result of 1960 experience a number of changes have been made in the 1961 program.

One of the most significant changes is the conversion from township to soil type as the basis for establishing coverages and premium rates.

In 1960, premium rates and coverages were constant throughout a township. But one end of a township could be sand and the other a rich clay soil; farmers were paying identical premiums for widely varying risks. In 1961, the man on the poor soil will pay a higher premium because of the higher risk of crop loss. The cost of insurance will be directly related to the ability of a soil to produce a crop.

The rate map may look like a crazy quilt, but it reflects a more rational basis for determining coverage and premiums.

AN equally important policy change is the decision to provide an alternative system for awarding loss indemnities.

Under the 1960 program a farmer could insure several crops for a total coverage figure. If the total value of the harvest equalled the total coverage, he received no indemnity. If, for example, he had a coverage of \$1,000 on each of his wheat, oats and barley—a total of \$3,000—he did not collect if his wheat produced \$3,000 or over, even if his oats and barley crops failed. He was insuring total income; nothing else.

In 1961 he has two alternatives: he can insure in the manner discussed above or he can, for a higher premium, elect to buy the new "separate crop adjustment plan" under which the indemnity payments will be based upon the performance of the individual crops. Under this program the farmer in the example above would collect on his barley and oats no matter how big the return from his wheat.

The premium is higher, in proportion to the increased probability of a collection by the farmer. Insurance of 100 acres each of wheat, oats, barley and flax under the combined crop adjustment plan would require a premium of \$286 on good soil in Roland municipality, but would jump to \$380 under the separate crop adjustment plan. Coverage in both instances would be just over \$5,000.

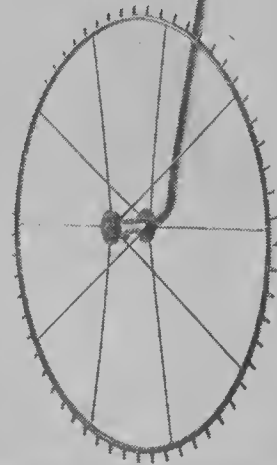
But the R.M. of Roland is in a good soil and good crop area. In the drier southwest of Manitoba, for example, the premium for these acreages would be \$403 in the combined plan and \$503 in the separate; the total coverage under either would be \$3,995. The risk is higher, and so the premium is up and the coverage down.

DISCOUNTS on premiums also begin in 1961. Any farmer who insured in 1960 and did not make a claim for crop loss will be entitled to a discount on his premium in his second year of participation. The discount will rise from 2 per cent in the second year to 40 per cent in the tenth; in years 1 to 10 the discount percentage will be 0, 2, 3, 5, 8, 12, 17, 23, 30 and 40. The maximum discount will be 40 per cent, and will be available only to the farmer who has participated without a claim or a missed year. If he achieves the 40 per cent discount it will take several claims to wipe out all this premium advantage.

A couple of other small changes have been made in the program for 1961. A tenant is no longer required to insure all the crop on his rented land. He now has the option of insuring only his own share. Further, no soil types are declared uninsurable. The coverage offered may be very low and the premium relatively high, but insurance will be written for those that want it.

One major change may be made, and that is in the types of crops insured. Manitoba has a substantial acreage of sugar beets and it is probable that insurance will be available on them in 1961, if the necessary 25 per cent of producers indicate a willingness to participate.

The stated objective of creating the test areas in Manitoba was to determine the feasibility of crop insurance. It might properly be asked what light 1960 experience throws on this question.



This novel wheel, the circumference of which is 1/10 of a chain, is a symbol of Manitoba crop insurance. It is used to measure field acreage.

A few tentative answers are possible. In the first instance, it would appear that farmers will support a program, judging by the fact that less than 500 of the 2,500 who insured in 1960 have cancelled their contracts. Close to 80 per cent are going to try it for a second year, although few of them have collected an indemnity.

It is also established that it is necessary to actively sell crop insurance in the area in which it is offered. Crop insurance agents called on every farmer within the Manitoba test areas. Only when the program was fully explained was there interest in participating.

Administrative costs—born equally by the Federal and Manitoba Governments—are high, due to the substantial cost of research and the cost of selling policies to farmers. As the program expands, the relative cost should decline, because it will be spread over more policies.

The agency expects that there will be more policies in 1961. If the sugar beet growers should favor insurance this alone will increase the size of the program but, in addition, insurance will be offered in a fifth test area this year and 2 of the 4 existing areas will be increased in size. On balance, assuming farm support, the 1961 coverage is likely to more than double last year's.

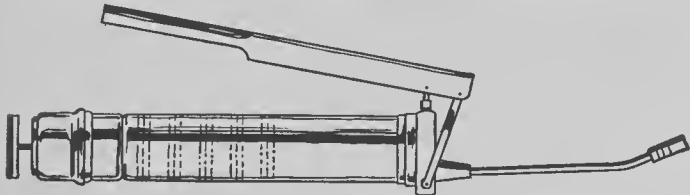
Whether it will finally be offered widely over agricultural Canada no one close to the Manitoba experiment is prepared to predict. The factor that will limit expansion is the inability of any province, hard pressed for funds as most of them are, to bear the risk of substantial losses. In the beginning years reserves will be small and a bad crop year, if much insurance is written, could undermine the finances of a province. Only when the Federal Government accepts the risk of extensive crop loss is insurance likely to be general. ✓



W. H. Hewitt, of Fort Whyte, talks with Man. Crop Insurance Agency managing director, Percy Ford. Hewitt insured and collected in 1960, will insure a larger acreage under program in 1961.

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ALWAYS
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Good Things In Small Packages

by CLIFF FAULKNOR

WHEN dwarf apple trees first began to appear in this country, gardeners were intrigued with them. Here was a smart-looking ornamental that could be grown as a tree or hedge and still produce a surprising amount of fruit for the table. Nobody seriously considered the dwarf tree for commercial orchards, however. Like the original Baby Austins, they were thought to be cute, but not very practical.

But compact orchards, like compact cars, have been a feature of the European scene for some time. In fact, today dwarf apple trees account for most of the commercial production in countries such as Holland, Belgium, Italy, Switzerland and Germany. Where land is at all expensive, no European grower would now consider planting anything else. They found out long ago



(Guide photos)
Louis van Roechoudt

Congo. It was a combination of unfavorable climate and prospective unrest in that latter area which decided him to move back to Belgium with his family. As recent events have proved, this was a wise decision!

ELEVEN years ago, the van Roechoudts made up their minds to move to Canada where there was more land available. They took over an old orchard near Okanagan Centre. That's when Louis first learned you "couldn't" produce fruit on dwarf trees in the Okanagan Valley. At least, that's what he was told by various people connected with the local apple industry.

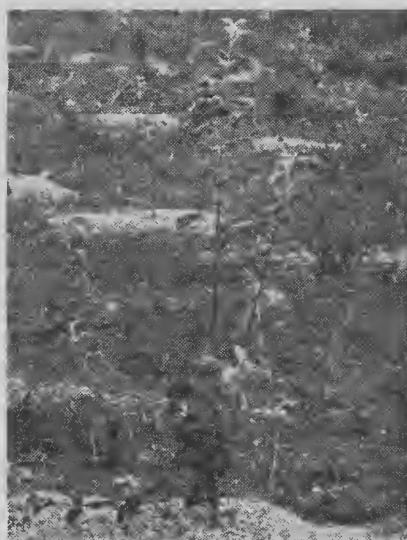
Just to see why the little trees wouldn't do well in the area, van Roechoudt planted a row of them. After 4 or 5 years, he decided dwarfs would do very well if they were managed properly.

"The average size of orchards in this area is 7 acres," he pointed out. "This is actually too small for extensive methods of cultivation. Yet many growers are still farming these units with these methods. Sometimes to such an extent I'd call it 'cowboy' farming."

Louis put in his first commercial planting of dwarf fruit trees in April 1956. After that, he began a steady program of replacing old trees with the small ones.

"Dwarfs take more care than normal-sized trees," he admitted. "You might also run into hardiness troubles if you didn't use the right cultural methods. The trick is to get the trees into dormancy soon enough so as to be ready for the first serious frosts. This can be done by cutting the irrigation water off early, and refraining from late cultivation."

It was the development of successful rootstocks at England's East Malling research station which led to the commercialization of dwarf fruit trees. Before choosing a particular rootstock however, you must know what kind of soil you have, the size of trees desired and what variety of



McIntosh (Malling IX root) planted in 1959 has a shavings mulch to conserve moisture and cut weeding.

that dwarfs give more high-grade fruit, and require cheaper harvesting equipment and less labor. But the little tree's greatest asset is that you don't have to wait 8 or 10 years before it starts producing.

Louis van Roechoudt, who owns a fine dwarf tree apple orchard at Okanagan Centre, B.C., puts it this way. "Time is a tree fruit grower's biggest investment. Waiting 10 years or more before an orchard can begin to pay for itself puts a big strain on his resources. A commercial dwarf planting begins to pay after two or three years — in the eighth or ninth year, it's in full production."

A Belgian by birth, van Roechoudt had been working with dwarf fruit trees in the Old Country for 20 years. He received a horticultural degree from the University of Louvain, and then did years of research on experimental farms in the Belgian

apple you want to produce. Once the right rootstock is selected, you can grow any variety of apple desired.

For instance, to produce his hedges, Louis uses an East Malling IX for his McIntosh Reds in loamy soil. In sandy soil, his Red Delicious trees require an East Malling IV root. His Golden Delicious are on an East Malling VII root.

THE van Roechoudt orchard now contains 14 acres of dwarf trees. Some are in straight plantings of about 665 trees to the acre, trained to grow on wires much like grape trellises or loganberries. This is



Belgian hedge yielded up to 700 boxes per acre of Golden Delicious in 1960 from his 1956 planting.

called the "Belgian hedge." Other types of training found on the farm are the "spindle hedge" and the common "spindle" (of German origin). The former consists of a solid mass of dwarf trees trained along 4 parallel wires, 24 inches apart, and the latter of individual staked trees with their branches bent over.

In addition to his orchard at Okanagan Centre, Louis van Roechoudt supervises an experimental planting of apple hedges on the farm of W. Hess at Quincy, Washington. Located in the Columbia Basin, about 200 miles south of van Roechoudt's, the Hess farm appears to have conditions of soil and climate very favorable to dwarf fruit tree growing. These trees were producing as much as 860 boxes of apples to the acre just two and a half years after they were put in.

"Apart from the time saved, dwarfs will give you a bigger percentage of top grade fruit," Louis explained. "One of the main factors in grade is color. Fruit from dwarf trees has better color because more sunlight gets in. On my McIntosh Reds as much as 80 to 90 per cent makes 'extra fancy' grade."

Apple men figure a grower can make a profit on his "extra fancy" fruit. If most of his crop grades "fancy" he can hardly stay in business. On "C" grades he loses money.

Another way dwarf trees can increase a grower's profit is the big saving in picking, pruning and spraying costs. Spraying can be done with an ordinary cheap boom spray. The trees can also be pruned, thinned

out and picked right from the ground.

One disadvantage to having an orchard of dwarf trees is the high initial investment needed to establish it. To get the best results, it's necessary to plant 400 to 600 trees to the acre. Even at the lower figure, the costs will run from \$1,000 to \$1,200 per acre. Another disadvantage is that with many Malling rootstocks anchorage is poor, therefore the trees generally need staking or wiring between posts to keep them from falling over.

In spite of the extra care needed, however, commercial dwarf plantings are on the increase in both Eastern and Western Canada. V

Continued from page 16

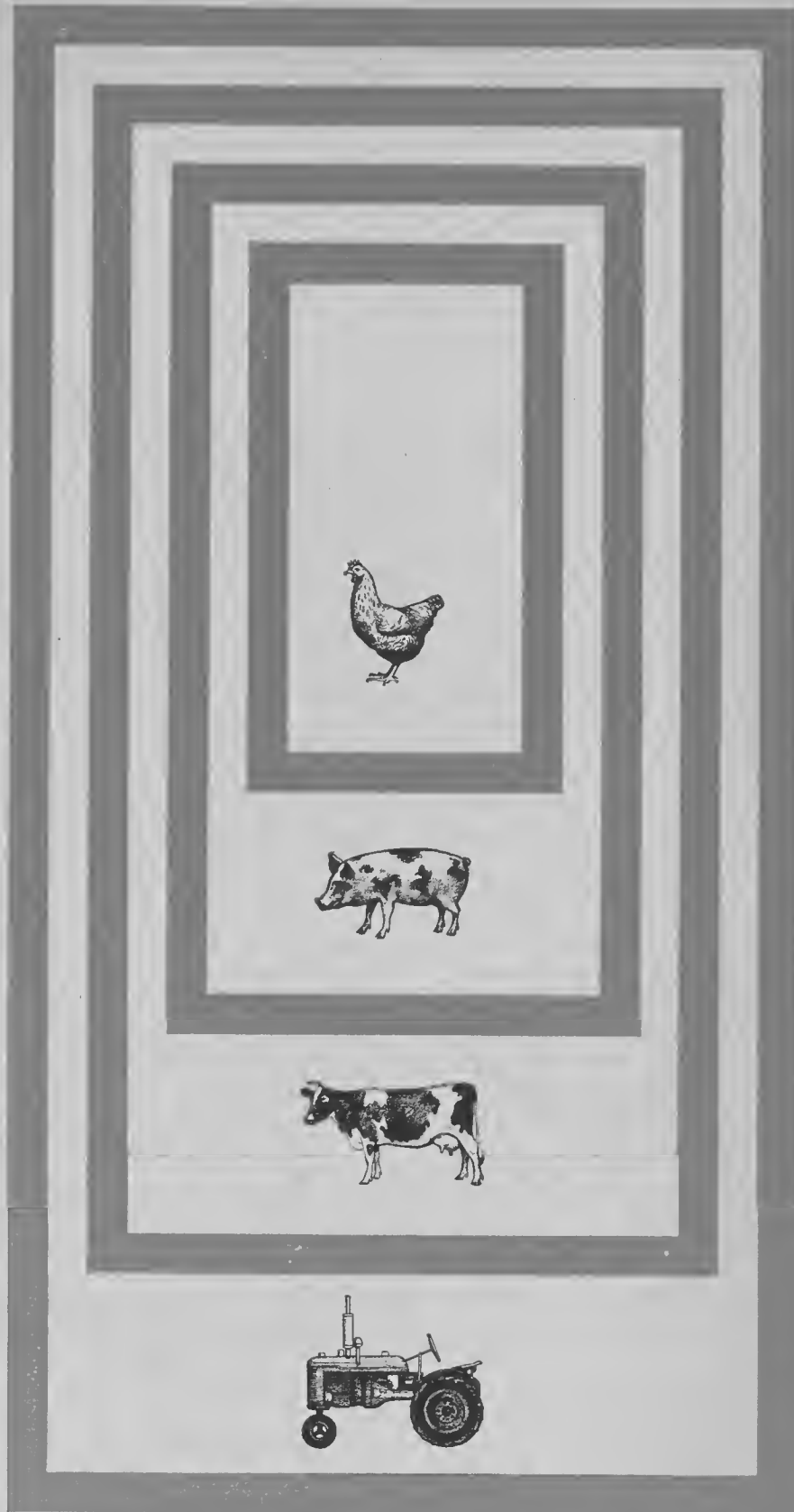
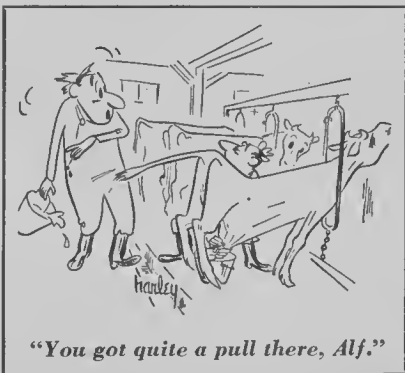
FARM FAMILY

Mrs. Martin shops once a week, doing some in Waterloo while Carolyn, 14, has her music lesson, and some in nearby Winterbourne on the way home. After several years of renting locker space in town, the Martins bought two freezers for the house in 1959. Mrs. Martin decided the two medium-sized freezers would give more available freezing space now, more efficient quick-freezing, and more flexibility, as they could sell one freezer when the family at home is smaller.

"It's worthwhile to pay a little more for good clothing that's easily cared for. I mark down what is purchased and where, so that I can buy the same thing again if I'm satisfied with it." This is another reason for the Martins' small dry-cleaning bill.

Her household accounts are just one of Mrs. Martin's interests. One day a week and sometimes more, she sorts and crates the eggs gathered from the farm flock. Mr. Martin usually washes them, but sometimes she does that too. This year she is president of the 39-member Winterbourne Women's Institute and is active in the Women's Society World Service group of St. Jacob's Evangelical United Brethren church. She worked as a 4-H leader for two years before Quentin's birth and encourages the children in their 4-H projects.

Mrs. Martin thinks they live in a privileged area, with easy access to the Stratford Festival theater, celebrity concerts, and the Ontario Agricultural College. A well-planned use of their resources helps the Martin family to make the most of their opportunities. V



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□ Example: every Ford, Meteor, Mercury and Monarch lets you drive up to 30,000 miles between chassis lubrications. Then a quick, inexpensive lubrication from your Ford of Canada Dealer sets your car up for another 30,000 miles.

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□ You'll enjoy your new Ford-built car . . . and you'll appreciate the quality, durability and convenience that have been built into it to save you money now, and in the future.

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The cynics say he is anybody who is at least a dozen miles from home. But we believe that a lot of farmers are experts on their own farms. That's why The Country Guide treats the farmer with respect, looks on him as a friend, and is always ready to listen to him. If there's something you want to tell us, or anything you want to ask us, the address is The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man.

Through Field and Wood

No. 31

by CLARENCE TILLENIUS



ALL winter the lone crabapple tree beside the wall has stood waiting, carrying its load of red fruit undisturbed. Hundreds of crabapples hang on it, deep glossy red last fall, now gradually becoming wrinkled as continued freezing and thawing dry up their juices.

One day a chorus of soft lispings calls, muted sibilant whistles, sounds outside the window. The whole tree seems to move as a flock of graceful brown birds flutter and bow among the branches, tweaking vigorously at the bunches of fruit hanging on their tough stems. It is not the pulpy, outside of the apple that attracts them, but the seeds hidden in the core. Topknots nodding, they peck and pull at the ruddy globes. Now and then an apple breaks suddenly loose from the stem and plummets to the ground. Head on one side, the bird follows its fall with one eye before taking wing to follow it down to the ground and turn it over. No seed is overlooked.

They are an appealing sight, these graceful gray brown birds. Unlike the Cedar Waxwings who are only with us in the summer, these

Bohemian Waxwings come at any time during fall and winter. They are wandering nomads. Months may pass without seeing one: suddenly one day they appear for a short stay making the days brighter with their presence, and then they are gone, departed once more on their restless travels. By late spring they are on their way to nest in the north.

They are among the most elegant of birds, gentle and confiding, exquisitely mannered. One of their customs which I had heard of but had not seen myself until a few years ago, is odd and appealing. When several birds are sitting on a branch, possibly of a rowan tree, the one at the end will pass a berry to the one next to him. He in turn passes to the next, and so on down the line. The last in line will either eat the berry or pass it back, and the same comedy begins again. Why they do it, I do not know. It may be a game. Once when the end bird had swallowed the berry, all the others turned and stared at him fixedly for some moments, exactly like school children when one of their number breaks a rule in the game. V

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**Wild Oat Control Over 90%
in Flax and Rapeseed**

"Treated low acres (fence lines) and got pretty good control. Where the soil was well worked, control was over 90%."



Leo Beuker, Humboldt, Sask.

1960 opened a new era in Canadian agriculture. Fields so infested with wild oats that cultivation would have been useless were made virtually free of wild oats by Canadian farmers by the use of Avadex, Monsanto's wild oat killer.

**Boosted Flax Yield Up to
10 Bushels Per Acre**

"Avadex treatment increased my yield between 5 and 10 bushels per acre. I wish I'd treated more..."

Alex Donald, Rosetown, Sask.

**Over 90% Control of
Wild Oats in Barley**

"We got over 90% control of wild oats in barley. Due to wet conditions we could not use Avadex as early in the spring as we would have liked. We feel the best treatment should be early before the wild oats germinate."



Jack McCloy

Jack McCloy, Kinistino, Sask.

**Wheat Yield 23 Bushels Per Acre
After Avadex Treatment**

"I was thinking of summerfallowing the area for a second year. Treatment on 160 acres cut down wild oats appreciably. Really satisfied with control."

Lytton Essex, Rosetown, Sask.

Western farmers have found that Avadex knocks out competition from wild oats for precious sunlight, moisture and soil nutrients. Monsanto's farm-proven herbicide kills wild oats as they germinate.

**Successfully Treated Flax,
Rapeseed, Barley, Wheat**

"I'm satisfied with the wild oat control. I feel I can improve results with more efficient incorporation."

Forest Hetland, Naicam, Sask.

Your farm supply dealer has a new booklet on wild oat control which tells you how you can seed earlier, harvest earlier and reap greater profits with Avadex, Monsanto's wild oat killer.

"The Fields Tell the Story", a film report on how Canadian farmers profited by using Avadex, will soon be shown by your farm supply dealer.

Avadex®
WILD OAT KILLER

A farm product of Monsanto Canada Limited
*trademark of Monsanto Chemical Co.



Good Bull Ups Profits

IT'S worth the extra investment needed to obtain a good quality bull, because his heifers will produce most of their calves for markets during the "improvement" years forecast for the last half of the 1960's.

Joe Kallal, Alberta livestock fieldman, reinforces this argument with the results of studies at Purdue University. These showed that through faster gains, less feed per 100 lb. of gain, and higher market prices, a superior bull on 30 cows can return about \$2,280 more than an ordinary bull in 4 years. This figure is based on calves at 24 cents per lb. In the case of calves at 20 cents per lb., a superior bull can return about \$1,900 more than an inferior animal during the same period. ✓

Fatal Feedlot Disease

EVER heard of clostridium perfringens? Another name for it is "feedlot blackleg." This disease is fatal to its victims, by means of a toxin that develops in the digestive system of cattle and travels through the blood stream.

According to veterinarians of the Manitoba Department of Agriculture, the bacteria of clostridium perfringens are probably present in the intestines of a large number of cattle. They don't multiply or infect the animal, however, unless it is on a high-energy diet. Feeder cattle fed primarily grain most often succumb to the disease.

Infection can be prevented by inoculating all feeder cattle as they are brought into the feedlot. A multiple clostridium bacterin, obtainable from the district veterinarian at low cost, is recommended. ✓

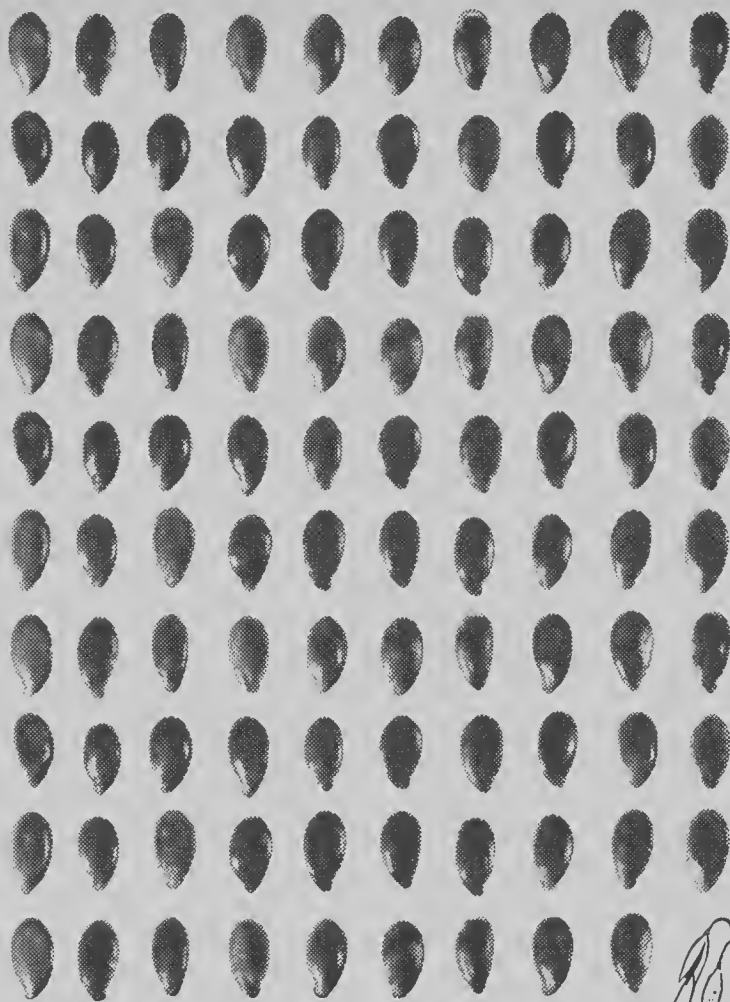
Hog Cholera Precautions

DISEASE control regulations on the feeding of garbage to swine have been extended to include slaughterhouses and institutions. These are now required to obtain permits to feed swine with garbage, which can cause hog cholera when not properly carried out.

Slaughterhouses include small slaughterhouses in rural areas where animals are killed for food and the blood and offal might be fed to pigs. The offal must be thoroughly cooked. Institutions include jails, religious houses, homes for the aged, and so on.

Garbage-fed swine may be sold only to slaughterhouses registered under the Meat Inspection Act, except for those killed for home consumption or for the local butcher shop.

No permits will be granted where sanitary conditions laid down are not fully met. ✓



Wild Oats...1%

Avadex

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1960 opened a new era in Canadian agriculture. Fields that were so polluted with wild oats that cultivation would have been useless, were made virtually wild oats-free by the use of a new chemical soil treatment from Monsanto called Avadex*. Avadex actually killed wild oats as they germinated for hundreds of farmers across Western Canada who pioneered the use of this new pre-seeding herbicide. Their crop yields were increased and profits were greater because wild oats had been cut consistently to about 1% to 5%. By using Avadex in 1961, more and more farmers will make sure of cleaner crops, higher yields and greater profits.

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LIVESTOCK

They're Missing Their Hog Premiums

NOT too heavy, not too light, and you'll make more money with hogs. That's the word from three provinces, where livestock specialists claim that too many hog producers are missing the premiums.

Erle Roger, director of Saskatchewan's animal industry branch, reckons farmers in that province stand to lose about \$100,000 on hog marketing this year. He bases this on the fact that 25,000 hogs graded "B" last year and could have made "A" if they had been the proper weight. The loss is incurred because the new premium for "A" hogs increases the difference to \$4.50 between "A" and "B".

Pigs must be marketed between 190 and 210 lb. liveweight to yield the 135 to 170 lb. carcasses required for grade A, says Mr. Roger.

MANITOBA'S swine specialist, D. S. Stevenson, claims that hog producers in his province lost \$1 million in 1960 through improper management. Of the 227,956 "B" hogs marketed, about 60 per cent missed grade A because they were too heavy.

A large proportion of the "B" hogs were marketed a few days too late, but a considerable number just weren't finished properly. Mr. Stevenson says surprisingly few producers feed a balanced ration. What's more, too few pay attention to the early growth of their market hogs. They allow the carcass to lengthen. A growing ration should be fed until the pig weighs 115 to 120 lb. before switching to a finishing ration.

There has been a minute trend toward better swine management in Manitoba. The proportion of grade A's marketed in 1960 increased by 1.5 per cent over 1959. Almost three-tenths of the 506,295 hogs graded A, and that was the highest proportion for at least 5 years.

On the other hand, 45 per cent of the total marketings graded B, and 10.2 per cent went into grade C.

THERE'S a similar situation, or worse, in Alberta. A. J. Charnetski, the livestock supervisor, says many of the hogs are overweight and overfinished, with shoulder and loin fat well in excess of the requirements for top grade carcasses.

Once a pig has reached 190 to 200 lb., says Mr. Charnetski, any extra weight goes mostly to fat under the skin and over the back, instead of into lean meat. Farmers must accept this fact and market their pigs in good growing condition at weights between 190 and 205 lb., yielding dressed hogs of 135 to 170 lb. for grade A. Other factors influencing the grade are type (not top heavy or with bulging ribs), length, and degree of finish.

Statistics show that Alberta has never occupied an enviable position in the percentage of top grade carcasses marketed. In recent years, the

percentage of "A" hogs has not only been well below the Canadian average, but also lower than in any other province.

Mr. Charnetski suggests that producers combine good breeding stock, balanced rations, and marketing at 190 to 205 lb. V

Proper Feeding

Aids Fertility

MANY things contribute to fertility in livestock. Potency of the sire, disease, regularity of the heat cycle, time of breeding, management and feeding, are all important. But according to Art Reddon of the Beaverlodge Experimental Farm, Alta., proper nutrition is paramount. If feeding is maintained at the optimum, not only breeding difficulties, but many other problems related to livestock production

are eliminated, or are decreased considerably.

Mr. Reddon offers the following guide to nutrition:

Beef Cattle. In the main, home-grown feeds can maintain beef animals without much outlay for commercial feeds. Minerals and vitamin A are absolutely necessary, and usually must be purchased.

At Beaverlodge, beef animals on roughage (hay and straw) have free access at all times to a mineral mix containing 60 lb. bone meal, 15 lb. limestone, and 25 lb. cobalt iodized salt. In addition, cobalt iodized salt

HOW TO TURN MORE REPLACEMENTS INTO PROFITABLE EGG PRODUCERS

Do this: coordinate proper feeding with protective medication through every stage — from baby chicks to laying hens.



1. Give them health in the drinking water. First immediate step for replacement chicks is AUREOMYCIN® Soluble in the drinking water for first 48 hours. This assures adequate early intake of AUREOMYCIN to guard against CRD, synovitis and blue comb. Give AUREOMYCIN Soluble at other times when disease or stress shows up.

2. Feed potentiated starter feed with Aureomycin. A PF starter containing 200 grams of AUREOMYCIN per ton is today's most effective feed. Fed for 3 to 4 weeks, this starter feed protects against CRD, synovitis and blue comb—guards against vaccination reactions—gets chicks off to a fast, vigorous start.

3. Dust away Newcastle disease and bronchitis. Here's your sure way to control Newcastle disease and infectious bronchitis simultaneously. Use Cyanamid Dust BIOLATOR®, or AQUAVAC® in the drinking water, at 1 to 7 days of age. Repeat vaccination at 3 to 4 weeks of age, 12 to 16 weeks of age, and every 4 months thereafter.

is available in block form, as it is undesirable to force animals to eat expensive bone meal to get salt. From the first of February until grass, gestating cows are supplemented with vitamin A at 250,000 I.U. per day, costing about 4 cents per animal per week. This is cheap method of insurance for overcoming calving difficulties and breeding problems.

Young beef animals need some additional protein, which can be provided usually by daily feeding of grain — ½ lb. per animal of supplement.

Sheep. Feeding of sheep parallels that of cattle. It is a fallacy that they can produce on cheap feeds. Here again, minerals, vitamins and protein are important. In conjunction with flushing, these practices will help to insure a lamb crop up in the satisfactory range of 125 to 140 per cent.

Swine and Dairy Cattle. Both of these need conscientious care for high production. They must have supplementary protein, minerals and vitamins. Dairy animals should be fed according to the amount of milk produced. V

What Is Warble Resistance?

IT'S possible that research into the natural resistance of cattle to warbles may lead eventually to a new method of control. R. H. Robertson of the Lethbridge Research Station, Alta., points out that young cattle have more warbles than older ones. As cattle age, they seem to develop a resistance. Warbles spend about nine months as larvae feeding on cattle, so it is possible that resistance in the older animals is the consequence of larvae which estab-

lished themselves there in previous years.

Shortly after the egg hatches, the larva crawls down the hair and bores through the skin, causing a slight swelling to develop. Again, when the larva migrates to the animal's back, it makes a hole in the hide. A cyst forms and walls off the larva from the rest of the tissue. Cattle also react to wandering larvae by forming antibodies, and methods have been developed at Lethbridge for detecting these antibodies in the blood.

The reaction between antibodies and the foreign substances that stimulate their production will interfere with the parasite's growth. It impedes the parasite's movements and inactivates the enzymes that it uses to dissolve its food. The investigation at Lethbridge on antibody development in cattle may show the reason why older cattle have fewer warbles than the younger ones. V

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the biggest handicap to making more egg money. It can strike suddenly, cause high death losses or severe slumps in production.

The Cyanamid Feed-Health Program—described step-by-step on these pages—shows you *what* to do to lick disease, *when* to do it and *how* to do it. It's a proved program—practical, sound, easy to follow.

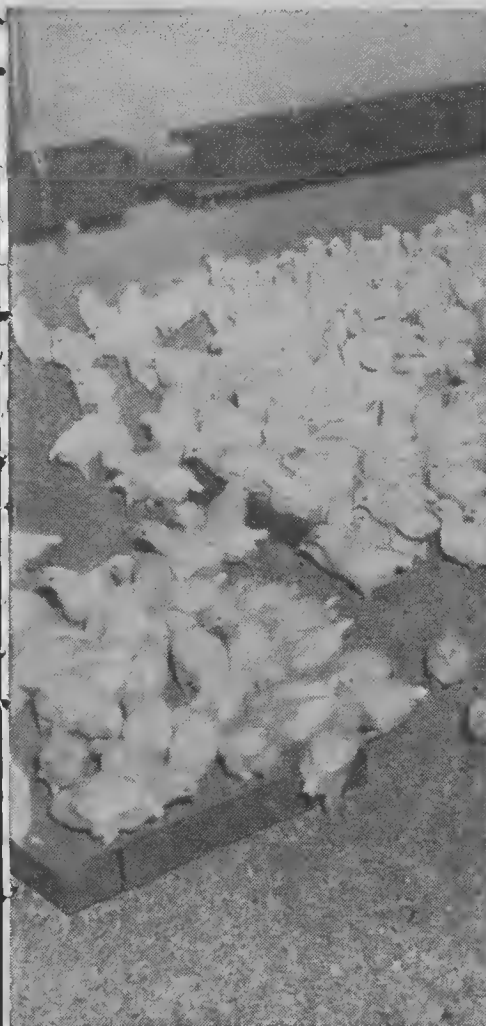
Talk to your feed man. Ask him for your free folder which describes, in detail, the Cyanamid Feed-Health Program for layers and breeders. Cyanamid of

Canada Limited, Agricultural Products Department, Montreal 2, Que. **AUREOMYCIN** is Cyanamid of Canada's trademark for chlortetracycline.

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4. Keep growing chicks healthy and vigorous. At 4 weeks of age, change to grower feed with 0.02% Nitrophenide. Feed up to 12 weeks Nitrophenide will continue to control coccidiosis and allow the development of immunity. If an outbreak occurs after 12 weeks, treat with SULMET® drinking water solution.



5. Don't risk disease setbacks later. Be prepared with a potentiated treatment feed containing 200 grams of AUREOMYCIN per ton at any time trouble shows up. AUREOMYCIN is ideal for treatment because it effectively controls CRD, synovitis and blue comb.



6. House more top-performing hens. When you follow this Cyanamid Feed-Health Program, you put more healthy pullets in the laying house. At the first sign of trouble—drop in feed consumption, slump in egg production or other symptoms of disease—use a feed containing AUREOMYCIN. Keep hens producing!

Predicts Boost In Feed Efficiency

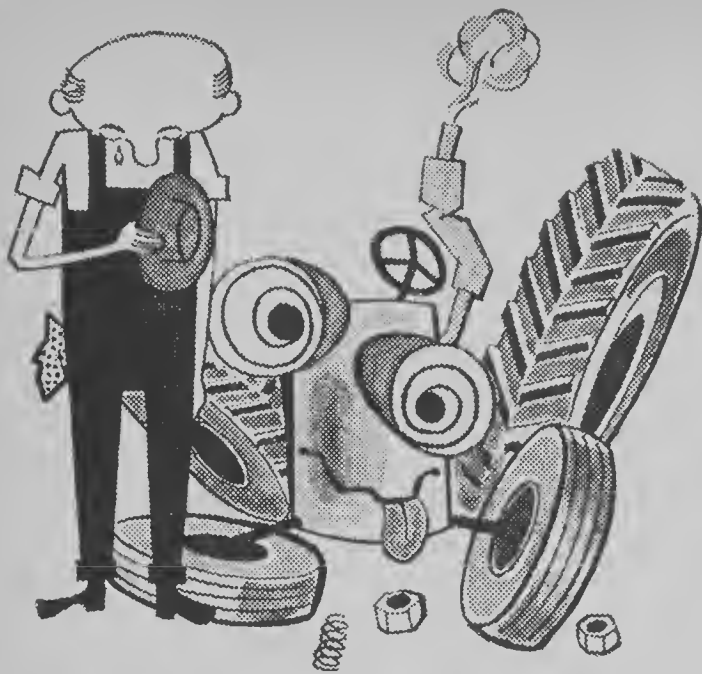


Dr. W. Crawford (left), who spoke to Western Stock Growers' Assoc. meeting, with C. Anderson, Brooks, Alta.

DR. WID CRAWFORD of the Pfizer Corp., Terre Haute, Ind., gave an interesting talk to the Western Stock Growers' Association recently on "What's New and Beneficial for Beef." Dr. Crawford reported that researchers are on the brink of important breakthroughs in livestock feeding efficiency. He predicted the present normal conversion rate for beef of 9 to 10.5 lb. of feed for 1 pound of gain would become 6 to 7 lb. Many diseases we can now only control will be wiped out when we learn the cause of these diseases. A lot of work is also being done on "complete" rations, and new mechanical feeding systems are being developed.

"We're learning many 'little' devices to increase feed intake, such as the location of feed to drinking water," Dr. Crawford pointed out. "That more feed is eaten if it's occasionally stirred up instead of becoming packed in the feeders. Multiple feeding, where the ration drops into feeders at regular intervals, is proving better than the unlimited choice method. Then there are the unidentified growth factors known to exist in some feeds, like alfalfa meal. Some day we'll know a lot more about this."

"The biggest advances in the past 10 years have been in the field of



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feed additives," he went on. "Over the next 5 years we'll see a number of new hormones developed. There will be breakthroughs in enzyme research, plant steroid research and the use of chemo-biotics for the prevention of bloat."—C.V.F. V

Beef Cattle Research Project

FOR years researchers at the University of Alberta's Animal Science Department have deplored the fact that very little basic research was being done in beef cattle breeding: that is to say, a systematic use of known scientific breeding principles to produce a superior beef animal.

"This basic research was started years ago in plants and poultry," Dr. L. W. McElroy, Animal Science Dept. chairman, pointed out. "As a result, we have our high protein, disease-resistant wheat, and special meat-type chickens. These have put a lot of extra money into the pockets of producers. As long ago as 15 years back we began to make plans for similar studies with beef."

The dream of a special beef cattle breeding project became a reality in January of this year when L. C. Halmrast, Alberta's Minister of Agriculture, officially handed over the lease of the 5,500-acre Kinsella Ranch to the University. Located 95 miles southeast of Edmonton, near Kinsella, the land was purchased from funds collected under the Horned Cattle Tax. Researchers in charge of the project, Drs. L. W. McElroy and R. T. Berg, hope to obtain high performance cattle that are well adapted to prairie conditions. There will be special emphasis on good udders, reproductive performance, gainability, feed efficiency, carcass quality and breeding consistency. They also hope to measure the effects of inbreeding and to gain a better understanding of inheritance factors in beef improvement. The testing program covers four phases: (1) pre-weaning calf performance, (2) feedlot performance, (3) summer grazing and (4) winter hardiness.

Two lines of cattle are being established at the farm, with 80 to 100 breeding cows in each. One will

be a purebred Hereford herd and the other a hybrid line with Charolais, Aberdeen-Angus and Galloway breeding. The project does *not* involve comparison of crosses of existing breeds. The breeds chosen were selected because: (1) their qualities complement each other, and (2) they have certain superior characteristics in their own right. Galloways were chosen for hardiness, Aberdeen-Angus for beef carcass characteristics and Charolais for growth and meatiness.

In conjunction with the beef cattle experiments, the Kinsella ranch will also be used for intensive ranch management studies, such as pasture renovation and brush control. V

How to Get a Diagnosis

WHEN the first signs of sickness appear in the herd or flock, take immediate action, advises Dr. J. R. Saunders, veterinarian with the Saskatchewan Department of Agriculture. Every outbreak of disease should be considered contagious until proved otherwise.

Dr. Saunders says there must be accurate diagnosis to insure proper treatment, prevention and control. When it is not possible to diagnose the sickness without laboratory assistance, sick animals or the organs of newly dead ones should be forwarded to a veterinary laboratory.

When livers, lungs, and other livestock organs are examined, precautions must be taken, because some animal diseases can affect human health. Place specimen samples in clean plastic sacks, tied securely and enclosed in a clean metal or glass container. A specimen should be packed with sawdust and ice, or dry ice, to keep it cool during transit. Ship it immediately to the laboratory.

All specimens should be clearly identified, showing also the origin and content. A short history of the case is helpful, indicating how long an animal is sick, the number of animals lost, and other details that will help to provide a proper diagnosis.

When possible, live sick specimens of swine, poultry, or other small animals are preferred for diagnosis. V

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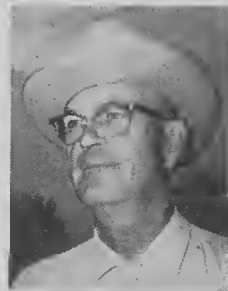
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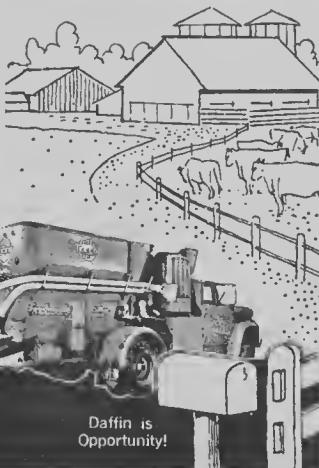
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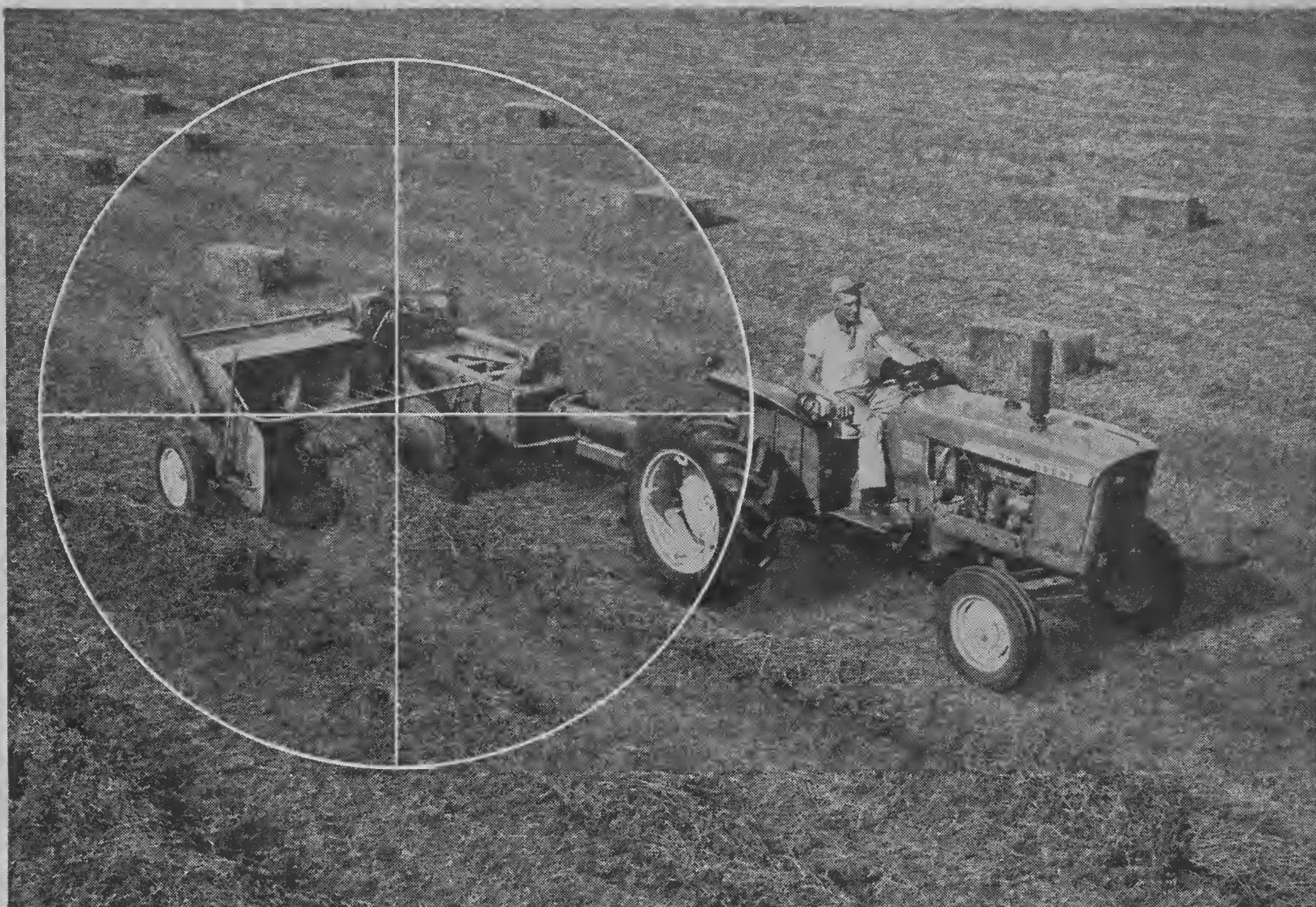
Dr. Roy Berg (mounted) and Dr. Vern Mendell check a representative group of animals at the University of Alberta Kinsella Ranch. They will conduct a beef cattle breeding project.



[Oulde photo

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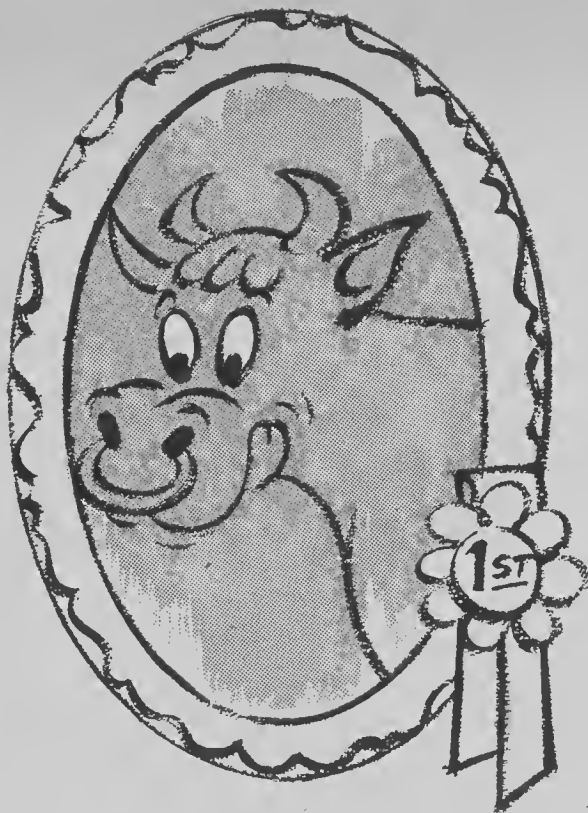
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More About SPF Pig Production

SOME background information on Specific Pathogen Free pigs (see "SPF Pigs" in March issue) has been provided by Dr. V. E. Senior, Saskatchewan's provincial veterinarian.

Addressing a livestock convention in Saskatoon recently, Dr. Senior said the diseases with which the swine industry is mainly concerned are virus pneumonia and atrophic rhinitis. The special features of these diseases are:

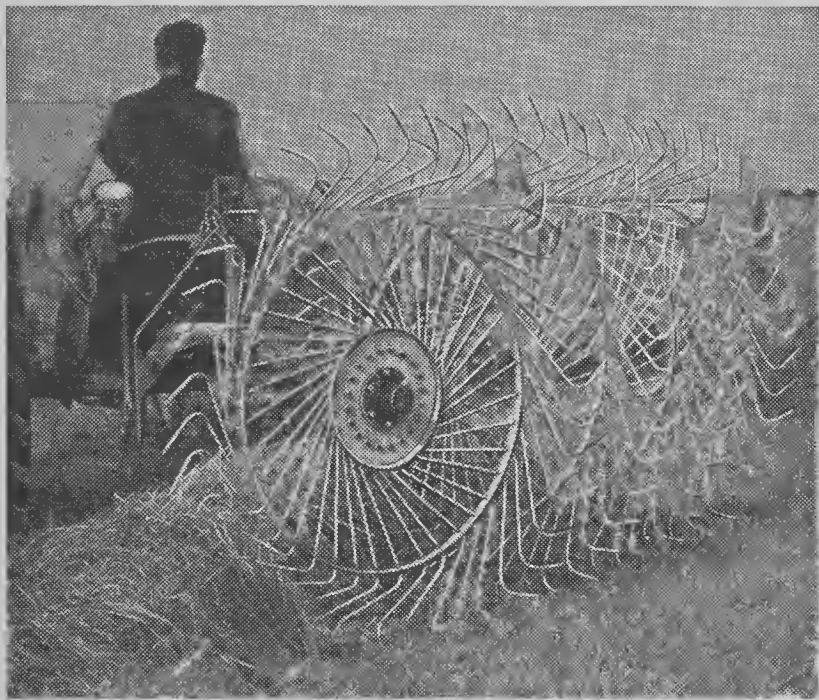
- They cannot be diagnosed with certainty in the live animal.
- Treatment is valueless, except to control secondary infections, which tend to complicate the outcome when management and nutrition are indifferent.
- There is no vaccine available. The live animal shows a lack of antibody response to these infections.
- The mother cannot transmit these diseases to the offspring before birth.

Given these facts, Dr. Senior concludes that only by breaking the chain of infection from sow to offspring is the eradication of such diseases possible. And to break the chain, natural birth is out of the question.

This is where the new technique of producing SPF pigs comes in. Dr. Senior says that the pigs must be removed from the sow by hysterectomy at about the 112th day of gestation. The operation must be performed with complete surgical asepsis (absence of micro-organisms that produce septic conditions), and the young pigs must be shielded from all contact with the environment. This is necessary to protect them not only from virus pneumonia and rhinitis, but also to guard against all bacterial infections.

If the pig is not to get its mother's colostrum, it will have absolutely no protection. As it can't suckle without risk of contracting virus pneumonia, the only alternative is to remove it to a disease-free environment until it is 4 weeks old. The steps in SPF procedure are as follows:

1. When the hysterectomy operation is done at 112 days gestation, the sow is sacrificed by suspension in a barrel of carbon dioxide, which is produced by crushed dry ice. Operator and sow are scrubbed clean. After 1 minute in carbon dioxide, the sow is opened and the



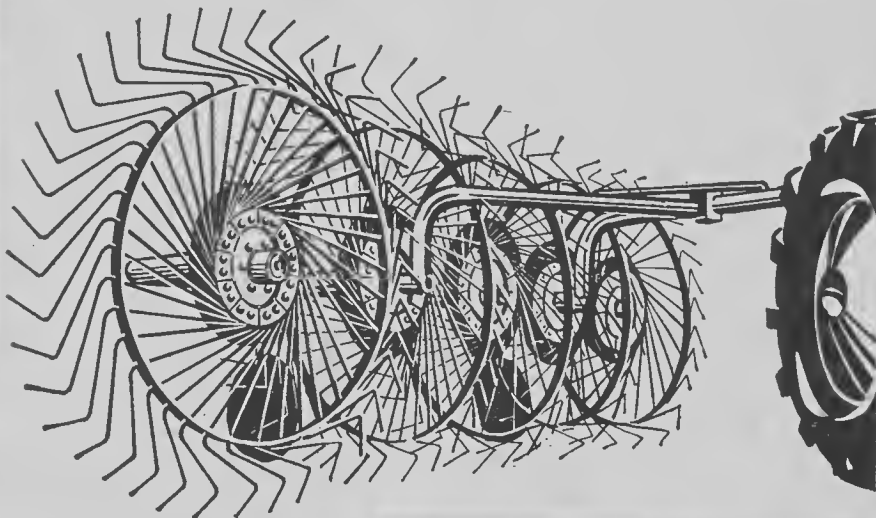
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womb is removed. This must be done in 30 to 50 seconds.

2. The baby pigs are removed from the womb immediately and are taken to special incubators, using special hoods and transporting equipment. Each pig has a separate incubator and is kept there for a week on a special diet.

3. At first, the milk mixture is heated to destroy bacteria, but once the first day has passed, ordinary pasteurized homogenized milk and a creep starter feed are used. Minerals and vitamins are added to the diet.

4. Pigs are removed from the incubators after 1 week and placed in brooders—8, 10 or 12 to a brooder. With special milk mixture and creep starter feed in the brooder for 3 weeks, the pigs are ready to go out to quarters, but must not come into contact with other pigs, unless they have been produced in the same way.

Dr. Senior reports that adaptation of disease-free pigs, deprived of colostrum, to farm-type management has been much easier than might have been expected.

In the U.S. Midwest, where SPF pigs were pioneered, there were 1,000 primary producing herds by the end of 1960, and there should be about 2,000 by the end of this year. Secondary herds are being established on approved farms, where SPF pigs are produced by natural means.

Performance of basic stock has been good, Dr. Senior reports. Naturally farrowed pigs from dams obtained by hysterectomy have high levels of performance. As an example, 112 litters averaged 8 pigs, with average weight of 41 lb. when weaned at 56 days, and 213 lb. at 154 days, for an average daily gain of 1.75 lb. The conversion rate was approximately 3 lb. of feed for 1 lb. of gain. ✓

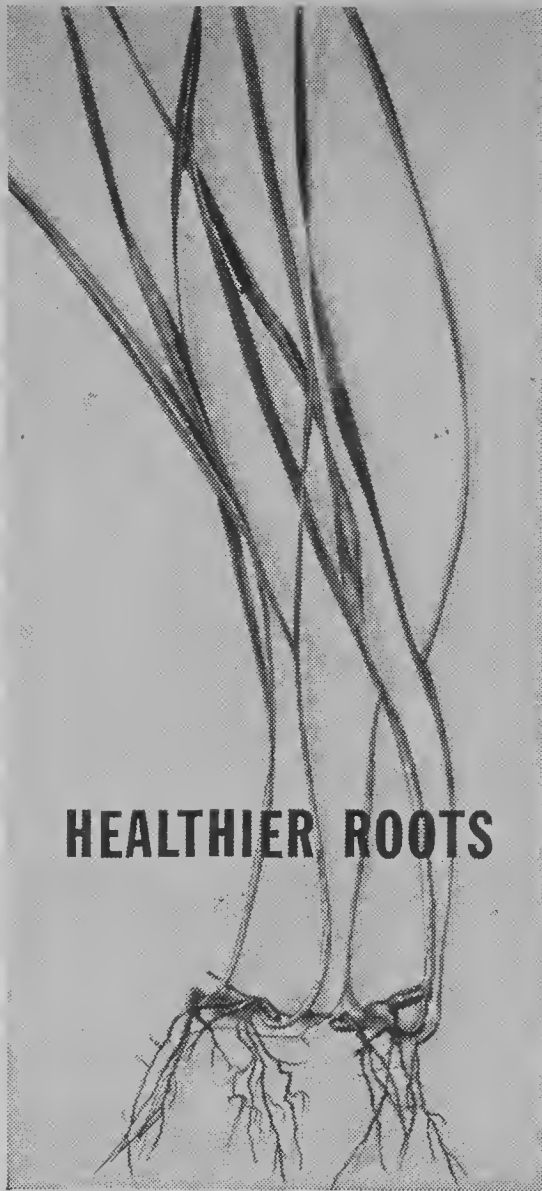
Resolution For Livestock Men

MANITOBA'S livestock commissioner, W. E. Jarvis, sums up the resolution that all livestock producers should make. It is to produce and market higher quality stock by

- using the very best breeding stock available,
- following recommended feeding practices, using balanced rations,
- following recommended management practices, such as proper housing and disease control,
- marketing stock when they are ready. ✓

Get Fat on Corn

IF you are feeding corn to hogs, be sure to taper off feeding it after they have reached 110 lb. Ontario Department of Agriculture livestock specialists say the hogs can get too fat unless you watch the corn ration. Quality is more important than ever since the premium on Grade A hogs has been raised. ✓



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*Information provided by Field Crop Branch, Alta. Dept. of Agr.

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Heavy Feeding Of Oats Has Its Problems

"**K**NOW your oats," says Dr. Milt Bell, who is head of the Animal Husbandry Department at the University of Saskatchewan. In this instance, Dr. Bell is referring to oats in hog production.

At the University and elsewhere, experiments have shown repeatedly the advantage of relying heavily on oats as grain for self-feeding during the finishing period—from 100 or 120 lb. to market weight. Current

recommendations are for a finishing ration with about 70 per cent Total Digestible Nutrients. Wheat contains about 80 to 81 per cent TDN, barley 70 to 72 per cent, oats about 65 per cent, and a typical protein-mineral supplement about 75 per cent. So it is obvious that a ration of farm grains and supplements is unlikely to be low enough in TDN (or energy) to discourage excessive fattening, unless oats are used.

But there's a new twist. Dr. Bell says plump, low-hulled varieties of oats, such as Rodney, don't have typical composition in terms of nutrients. While such oats are welcome under most circumstances, they may not help in a finishing ration for pigs.

The real issue probably involves the relative amounts of hull and groat. There is no experimental work available to show specifically the effects of feeding oats of varying bushel weights. And it would be difficult in such a project to avoid confusing the issue with other factors, such as variety, season, frost damage, etc. However, there has been enough work on oat hulls, oat groats, and oats in general, to allow reasonable conclusions to be drawn.

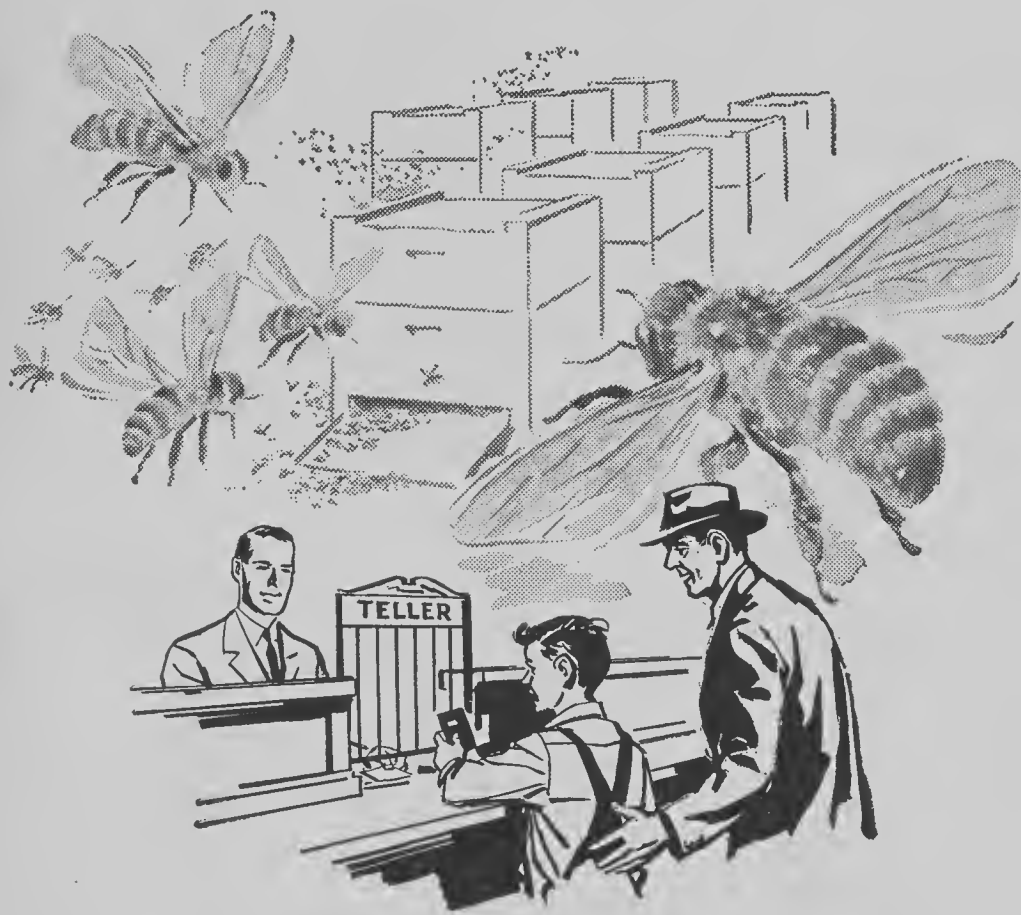
IN Table 1 (on facing page), you will see average feed composition as reported in N.A.S.-N.R.C. (U.S.) tables. This involves from 50 to over 150 separate analyses on each component.

Dr. Bell's staff used 5-year figures from the University's Field Husbandry Department to calculate a general relationship between per cent hull and weight per bushel in oats. They found a high correlation for all samples below 38 lb./bu. In fact, for each 0.9 per cent increase in hull, the bushel weight decreased by 1 lb. (one-third of samples studied exceeded 40 lb./bu.)

Table 2 shows the results of bringing together the information available on composition, digestibility, per cent hull and weight per bushel. It becomes immediately clear that oats of high quality can exceed average barley in energy (TDN) and that hull-less oats have considerably more energy than either wheat or corn. The latter is due to the combined effects of low fiber and high fat contents.

ANOTHER point that emerges, says Dr. Bell, is that in order to stay under 70 per cent TDN in a finishing ration, we may have to think in terms of oats no better than No. 2 or No. 3 feed grade. Fiber can be added in other ways, but it is not always economical to do so, despite evidence that carcass quality can be influenced greatly by this means.

Bran, ground alfalfa, ground wheat straw, etc., can be incorporated in heavy grain rations to bring



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the digestible energy content down to the desired level. But the costs of the ingredient, the processing and the increased feed requirement per pound of gain may offset much of the potential gain in terms of selling price and premiums.

Dr. Bell believes the cost of fiber has to be low, and *light* oats with

very low commercial value may serve particularly well in a finishing ration. On the other hand, low-fiber, hull-less or dehulled oats, which contain more protein and TDN than wheat or corn, serve well in the rations of young pigs. At this stage, rapid growth and development are important. V

Table 1—Composition of Oats, Oat Groats and Hulls (%)

Sample	Crude Fiber		Crude Protein		Crude Fat	
	Average	Range	Average	Range	Average	Range
Oats	12.6	(10.3-15.1)	13.8	(11.0-16.5)	4.8	(3.4-6.4)
Oat groats	2.9	(1.0- 5.8)	16.7	(15.3-23.2)	5.8	(4.1-9.7)
Oat hulls	32.4	(23.6-37.9)	4.1	(1.8- 9.9)	1.4	(0.1-3.6)

Table 2—Relationship between % hull, quality and feeding value of clean oats

% Hull	% Groat	% T.D.N.	Est'd. lb./bu.	Commercial Grade
0	100	93	—	(hull-less oats)
25	75	76	41	1 C.W.
30	70	73	36	2 C.W.
35	65	70	30	2 Feed
40	60	67	25	3 Feed
50	50	60	—	—
60	40	53	—	—
70	30	47	—	—
100	0	27	—	(oat hulls)



Doing Away With the Whey

CHEESE factories are finding it difficult to dispose of whey.

There was a time when it was used extensively in hog feeding, but that has changed. To make the surplus problem more acute, water resources boards are clamping down on the practice of dumping whey into streams because of pollution and its harmful effects on fish.

When a factory converts 100 lb. of milk into cheese, it is left with about 80 lb. of the watery, sugary residue called whey. This amounts to a great deal when it is realized that Canada manufactured more than 100 million lb. of cheese in 1960.

Some cheesemakers are using drying machinery simply to reduce surplus whey to manageable size. Others are filtering it away underground, or dumping it into abandoned quarries. Gone are the days when a farmer brought milk to the cheese factory and returned with a load of whey to feed to hogs. As cheese factories became fewer and farther between, truck and bulk tank operators took over the hauling of milk, and were not interested in the return-whey business. And now, only pasteurized whey can be carried in milk cans.

There is no longer an economic basis for the dairy-swine combination, except close to a source of whey. Furthermore, the number of hogs has declined.

What is being done about it? Drying plants are making whey powder for animal and poultry feed, and are finding a small market for it in some human foods. The Canada Department of Agriculture is experimenting with whey as a weapon against stripe mosaic in barley, and for other cereal diseases. V

Five Points Worth Watching

ONTARIO dairy herd owners are lining up "10-deep" for acceptance in Dairy Herd Improvement records. Some owners of purebred herds have been asked to switch to ROP to give more people the chance to use DHIA, according to the Ontario Department of Agriculture.

DHIA is showing some significant results in Lambton County, where net returns varied from a loss of \$276 to an income of \$4,600. On a labor-per-hour basis, says ag. rep. Bill Abraham, this works out to a spread of \$0.49 to \$3.40 per hour for time spent with the herd.

Abraham considers there are five management points mainly responsible for the difference in labor returns. A weakness in any one of these could mean below-average income:

1. Production per cow. Labor required for a high producer of milk or butterfat is little more than what is needed for a low producer.

2. Feeding efficiency. Costs of winter feeding and supplementary summer feeding depend on the ability of the farmer to select low-cost balanced rations. Remember that grass is the cheapest summer feed and hay is the cheapest source of protein.

3. Labor efficiency. Time-saving barn and field layouts boost labor efficiency, and are just as important as equipment.

4. Capital use. Along with labor, take into account the number of cans of milk shipped per \$100 of investment. Some labor-saving equipment is simply too expensive if there is not enough milk produced.

5. Size of business. Usually, an increase in the number of cows will increase the income. V

Vaccine for Scours

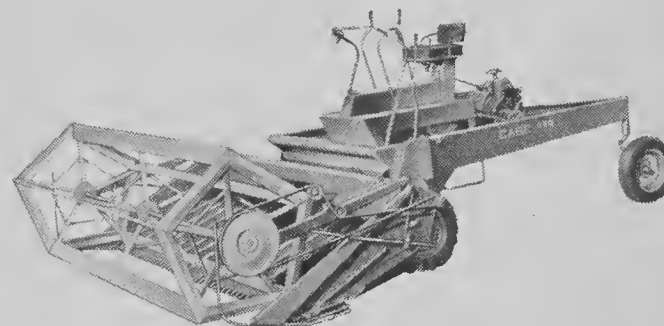
IF you have a big calf scours problem, it might pay you to ask your vet. about a new vaccine that can be made up specially for your farm by the Ontario Veterinary College, says Dr. Howard Neely. V

New CASE[®] WINDROWERS CUT CROP LOSS

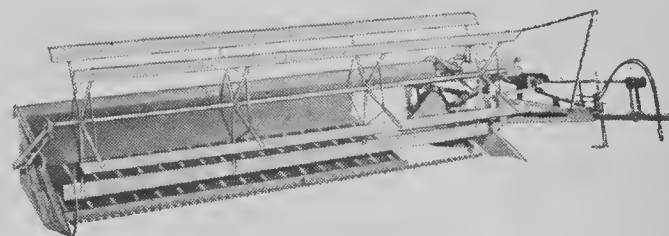
- cut heavy crops fast
- built to last!



CASE 850 is built *extra rugged* to handle heaviest grain and hay crops under tough traction conditions. Choice of 10, 12, 14 or 16-foot heavy-duty header with hydraulic pedal control for raising or lowering. Three-way power steering gives you safe, sure manoeuvring . . . power, pivot or spin turns. Case V-type air-cooled engine packs plenty of power, gives speeds up to 9 MPH. Direct drive ensures constant sickle speed. Easily removed hay conditioner optional.



CASE 820 is a low-cost unit designed for grain crops or light hay. Choice of 10, 12, 14 or 16-foot hydraulic headers. With 14-foot header, you can windrow up to 80 acres a day. Gives you turn-on-a-dime manoeuvring with 3-way power steering as standard equipment. Powered by V-type air-cooled engine with variable speed drive.



CASE 720 pull-type machine cuts all seed and grain crops . . . lays a light, fluffy windrow. Choice of 12 or 16-foot cut. Swaybar-type central sickle drive. Sickle cuts at 540 strokes per minute. Hydraulic tractor-seat control of reel and platform. Smooth V-belt drive with safety shields on PTO and drive shafts. Rear-mounted wheels.

Get \$200 IN CASH direct from J.I. CASE!

You cash in twice when you trade now for a new CASE 930 Tractor! First, you get an extra big Spring Trade-in Allowance at your CASE Dealer's. Then you receive an EXTRA CASH BONUS of \$200 direct from J. I. Case Co.—over and above your big trade-in saving! Limited time only. See your CASE Dealer now!

"To get 25% to 30% more capacity..."

We changed to CASE and

**"With our 3 CASE 1000's, we're
daily in 30-bushel wheat."**

"I changed over to CASE Combines in '59 because they've got the big capacity I was looking for," says Bill Loose of Vulcan, Alberta.

"These new CASE 1000's offered me 25 to 30 per cent more capacity—which meant my crop could be harvested that much faster. And those saved days can make all the difference between getting your crop off—or taking a beating from a bad turn in the weather.

"I heard good reports about the CASE 1000's from other farmers. And they've done a terrific job on my place too. This season we're averaging

On his Southern Alberta farm, Bill Loose has 7,000 acres in wheat, flax, oats and barley. He also carries about 1,400 hogs the year 'round and feeds 300-400 head of cattle over the winter. In addition to his CASE Combines, Bill owns three CASE 930 Diesel Tractors. With their big 6-cylinder 83 HP engines, they give him the extra lugging power he wants to handle bigger implements and cut his tillage costs.



cut days from our harvest"

—says W. A. (Bill) Loose, Vulcan, Alberta

averaging over 200 acres

over 200 acres a day with the three machines in 30-bushel wheat. With 7,000 acres to take off we're going steadily twelve hours a day except for meal stops. These combines have proved to me they have what it takes to stay on the job and handle a big harvest fast."

Right through the West, men who judge combines on *performance* are making the move to CASE ! Why don't *you* get all the facts on the combines that are setting new harvesting records in all crops, under the toughest conditions? See the sensational new CASE 1000 and 800 Combines at your CASE Dealer's soon !

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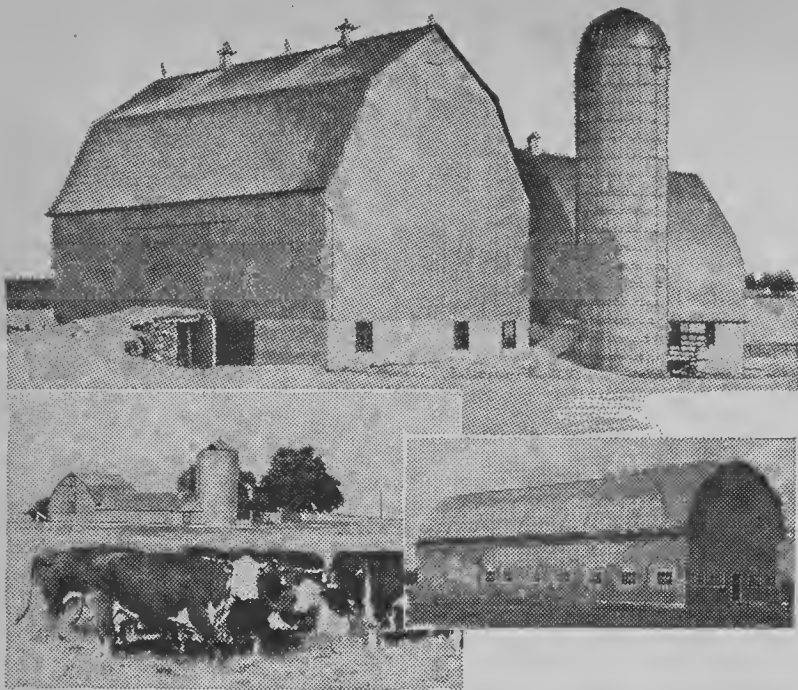
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*Check these harvest-speeding features of the **CASE 1000:***

- 42" cylinder and 42" *straight-through* body.
- "On-the-go" controls give new ease of handling. You change cylinder speed and concave clearance right from the operator's seat. No stopping or shutting down.
- Powered by 70 h.p. CASE gasoline engine that set new world's record for fuel economy. Diesel, or LP-gas also available.
- Big grain tank with super-speed discharge augur empties in less than a minute !
- 12', 14', 16' or 18' headers.





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DAIRYING



Ralph MacKenzie breaks open a bale of the mechanically dried hay, and cows crowd in for a taste of it. His drying shed and wagons are in the background. [Guide photo]

Barn Drying Is for Best Hay

Early season haying, barn drying, result in the best dairy feed you can get

EVERY field of hay that Ralph MacKenzie cut last summer was under cover that same day, and he says now: "It is the best hay we ever saved. It is soft and green and nutritious."

In fact, MacKenzie believes that he has finally come up with a system that beats the problems of haying. It's almost foolproof, because same-day cutting and harvesting just about eliminate the risk of weather damage.

Hay is important to MacKenzie, manager of Fundy Farms at Truro, N.S. He has 60 Jersey cows in the herd, and some beef cattle as well, and he makes 17,000 or 18,000 bales a year for them.

"Good hay is worth more to make milk than any other cattle feed. It's worth more on the market too," he adds, recalling one case where field-dried hay was selling for \$35 a ton and barn-dried hay for \$60 to \$65 a ton. His own experience indicates those prices may not be unrealistic.

According to MacKenzie, you've got to do two things to make good hay:

- Cut it early.
- Get it under cover fast.

Under his system, he can do just that. In fact, he began haying two weeks earlier than usual last year—in mid-June. He used a conditioner on the hay after cutting, and later in the day baled and loaded it into his slatted-bottom wagons. Then, he hauled it to the hay drier where it spent the night. Next day those bales were ready for the barn.

MacKenzie built his drying shed last summer to handle six wagons—for a capacity of about 800 bales a day. Hot air is forced through the air duct in the shed. Canvas hoods leading from the duct fasten over each wagon load, directing the hot air through the hay. His drying unit includes a 5 h.p. motor, a 3-foot blade on the fan, and nozzles to release 3, 4, 5, or 7 gallons of fuel per hour, depending on how much heat is required.—D.R.B. V

Keep the Door To the Udder Locked

"THE main cause of mastitis today is stress, which upsets the balance between healthy cows and the bacteria around them." This opinion was given to the Saskatchewan Dairy Association's convention recently by Dr. V. E. Senior, provincial veterinarian.

Streptococcus and agalactiae, the "public enemy number one" bacteria of mastitis, have been considerably reduced by penicillin and health measures. But, he said, a number of bacteria living around cows can also cause mastitis. Chief among these are the staphylococci bacteria which

can cause as much damage as the "strep" invaders of years gone by. The "staph" are harder to control because they come from many sources.

His advice is to keep the door to the udder locked by controlling stress, which lowers a cow's resistance in its udder tissue to the disease bacteria surrounding it. Once bacteria enter, the cow may get mastitis.

Most stress occurs during milking, says Dr. Senior. It results from mismanagement of the milking machine. A recent report from England

DAIRYING

showed that of 198 herds with mastitis, faulty milking was to blame in practically all cases.

To milk properly, milk as quickly as possible. Dr. Senior says that under ideal conditions three-quarters of cows need 4 minutes or less for milking. The milking machine can be removed from the udder within 6 minutes, after brief pressure on the claw to remove the strippings. About 70 per cent of the milk is removed from the udder in the first 2 minutes. Here is a summary of the main points:

- Limit the number of units to two to prevent overmilking. Don't let inflations or milking tubes stay on teats too long. They creep up the teats and cause irritation, which can lead to inflamed udders, and later to mastitis.
- Stimulate complete milking by washing udder and teats before milking and drawing the first milk into a strip cup. This causes reflex stimulation of the pituitary in the cow's brain, which releases a hormone that helps milk to come down.
- If you delay milking more than 3 or 4 minutes after the udder is washed, you lengthen the milking time and reduce the yield.
- Paper towels are handy for washing udders. Use one towel per cow.
- After the udder is emptied, the milker's vacuum goes up the teat and places the lining cells of the

milk glands under stress. In addition, opposite walls of the teat are rubbed together with each pulsation of the milker.

- It is better to leave a little milk in the udder than to overmilk. Leaving some will not cause mastitis, and it will be taken out at the next milking.

- Keep vacuum of suction cups at the recommended level, and have it checked regularly by a technician.

- Take teat cups off the cow gently. Break the vacuum by inserting a finger in one of the cups. You can cause serious damage through violent removal.

- Replace teat liners as soon as they start to deteriorate. Hard liners can cause mastitis by creating irritation during milk flow.

- Store teat cups in a cold caustic solution to remove milk fat from liners. A cold solution of 0.5 per cent lye is satisfactory.

- Rinse teat cups in fresh, clean water, and then in a suitable disinfectant solution between milking each cow. Change rinse water often to avoid contamination with bacteria.

- Dip each teat cup in disinfectant after milking. A cupful of chlorine solution (250 parts per million) is used for each udder. Then throw away the solution. If a solution of 70 per cent alcohol is used for dipping teats, 1 ounce will serve 30 cows before it is thrown away.

- Start on heifers when milking an infected herd. Then go to disease-free cows, and finally to cows with mastitis.

- Check each cow with strip cup or California mastitis test, as the amount of infection can change each day. If milk is abnormal, have the local veterinarian send a milk sample to a laboratory for cultural and sensitivity testing.

- Except in acute cases which need prompt attention, delay treatment until diagnosis based on a milk shed test is proved by the laboratory. If possible, treatment should be delayed until the cow goes dry, if this doesn't conflict with local health regulations. Results are better when cows are dry rather than in full lactation.

Bulk Storage Needs Sanitation

SOUR milk was looked upon as a normal development when milk was kept for any length of time. It was taken as an indication that the usefulness of the product had come to an end for most purposes. But, says Dr. J. B. Linneboe, bacteriologist with the Alberta Dairy Branch, the farm holding tank has changed the picture.

Milk kept in the bulk tank at a temperature below 40°F. no longer goes sour, but it can take on a bitter or unclean taste while waiting to be picked up. Therefore, the holding

tank itself is no guarantee that milk will not spoil.

Minimum contamination can be achieved only by thorough and regular cleaning of milking machines, milk pipelines and bulk tanks. Modern dairy cleansers are designed to maintain the high standard of sanitation demanded by the dairy industry.

Put Them On Pasture Gradually

BE careful when pasture time comes again. Many weeds and pasture plants will taint milk and cream in the spring, so make the change from winter feeding to grazing gradually.

After a long winter on dry feed, cows are attracted to most green plants, including those which taint milk, says D. H. McCallum, Alberta's dairy commissioner. One of the offenders is stinkweed, which makes its appearance early in the growing season. Crested wheatgrass can also cause unpleasant flavors if cows are given too much grazing time at the start.

Allow cows onto pasture for short periods to begin with—20 minutes is long enough for the first day. The grazing should be in the early part of the day, rather than just before milking. If cows stand for 3 or 4 hours before milking, the risk of taints is greatly reduced. The grazing period can be gradually increased.

Losing valuable ground to grass?

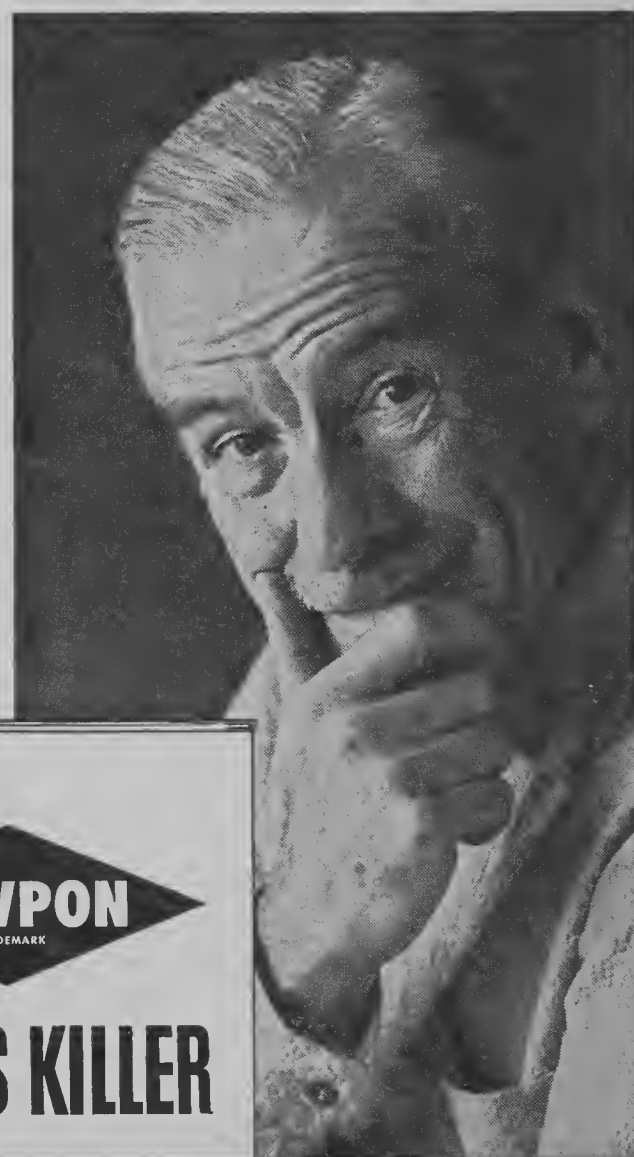
Kill problem grass with DOWPON!

DOWPON* KILLS QUACK GRASS, foxtail, cattails, couch grass.

A systemic killer, Dowpon sprayed on actively growing grasses works right through the plant to kill it — roots and all. Dowpon is also used as a selective spray on flax and rape for low cost control of wild millet. Dowpon pays for itself by increasing the yield of field crops, opening drainage or irrigation ditches, cleaning fencelines. *There's a free sample for you at your Dow dealer's now!*

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DOW CHEMICALS
AT WORK



FOR COMPLETE PROTECTION...USE THE DOW FAMILY OF FARM CHEMICALS

WORKSHOP

Barrel Stand

To make a simple, strong barrel stand in a hurry, take two empty barrels, lay them down side by side, and put a rope or chain around them. Lay a full barrel on top, and you'll find it is high enough to put a molasses tub under for filling.—W.D.R., Alta. ✓

Protect Bulbs

Dab a bit of grease or petroleum jelly on the base of electric bulbs used in extension cords or outdoor fixtures. Comes time to renew a bulb, it can be removed easily without breaking in the socket.—S.C., Fla. ✓

Spacing Posts

To space posts evenly and quickly, use a tractor digger. Set the tractor in line with a post, and when moving to the next location, drag a chain behind the tractor. The chain should

be the right length to measure the space correctly.—W.G., Alta. ✓

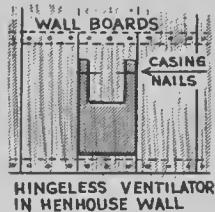
Restoring Threads

When you lack a die to restore damaged threads on a bolt, stud, etc., make one from a nut of matching thread and size. Cut several radial grooves in the threads with a saw or file, then heat the nut a dull red. Sprinkle granulated sugar on the threads until the sugar burns. This gives such a tough surface on the nut as to make it an excellent die. If you need to dress up pipe

threads, make a die from a section cut from a pipe coupling of correct diameter.—S.C., Fla. ✓

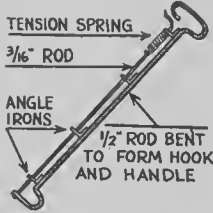
Henhouse Ventilation

If you're building a poultry house and the outside wall consists of upright 1" x 10" or 1" x 12" planks, you won't need hinges on the ventilators. You can cut them right into the wall and pivot them on a pair of nails. Use a keyhole saw to cut out the ventilators, and then drive two eightpenny casing nails through the wood, as indicated. It's a good idea to drill a 1/8" hole through the ventilator to prevent the wood from splitting.—H.E.F., Tex. ✓



Iron Bull Staff

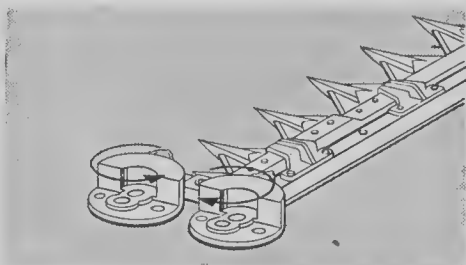
I made a bull staff out of a 1/2" wrought iron rod, 5' 8" long. This allows 12" for a handle and 8" for a hook. Before bending the hook, I drilled a 3/16" hole through the rod at 1/2" from the end. When finished, with handle and hook bent, the overall length of the staff is 4'. To provide a secure latch operated from the handle end, I welded four angles in place, one near the handle, one near the bend of the hook, and the others spaced evenly between. These angles are 1 1/4" x 1" x 1/8". Each of them was drilled with a 3/16" hole to take a rod, which was bent at the handle end to act as a trigger pull. A spring working against the top angle provides the tension to hold the small rod.—A.B., Sask. ✓



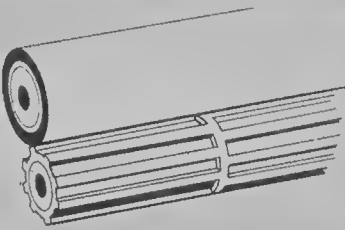
CURE-RIGHT HAYING...

fast

Haymaking has now become fast, easy and smooth the Allis-Chalmers way—with equipment for producing top quality on every farm, in every type of hay. For example, cracking *lightly*, just enough to break the wax coating on the hay stems, is the secret of Allis-Chalmers hay conditioning. Hay plants come through limp, but complete—not chopped or mangled.



LISTEN—no-chatter, pitmanless mowing saves hours, holds quality. New Allis-Chalmers mowers for 1961 provide one-piece, reinforced cutter bar design... heavy crop durability in the TWIN-WHEEL drive mechanism.



SEE Cure-right Conditioning—note how the combination of rubber and steel rolls makes the difference, leaving stems soft and limp. Wax coating is cracked to allow 50 percent faster curing. This is the kind of hay conditioning acclaimed by college research specialists as the finest!



TWIN-WHEEL is an Allis-Chalmers trademark.

Ask your dealer about the Allis-Chalmers plan to finance your time purchase of farm equipment.



Note above the new Allis-Chalmers Hay Conditioner Hitch. This is the "wishbone" that trails a conditioner so surely and easily any need for a second tractor and operator is eliminated. Ideal for use with all 80-Series mowers, all styles, including trail-type.

★ ★ ★

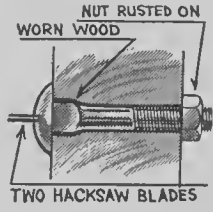
Choice of three 80-Series mowers available—side-mounted, rear-mounted, or trail-type. Three models of Allis-Chalmers rakes—parallel bar 77, rear-mounted or ground drive; also No. 7 Pull-Type Side Delivery Rake and Tedder.

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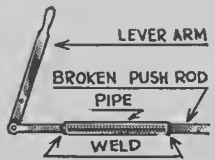
Removing a Bolt

The illustration shows a "wood bolt," which has a squared portion on the shank intended to prevent it from turning. As most of us know, the wood can weaken and fail to hold the bolt, while at the other end the nut is rusted on, and it's tough to get the whole thing out of the wood. But by sawing a slot in the head of the bolt with two hacksaw blades together, then holding the bolt firmly with a screwdriver, the nut will usually come off. Oil, of course, helps in some cases. If all else fails, there's still the old method of sawing the nut or the head off and putting in a new bolt.—W.F.S., N.J. ✓



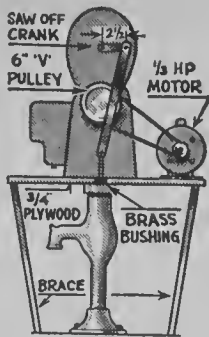
A Better Weld

If the push-rod from a lever breaks, and it has been welded before, get hold of a piece of pipe, about 5" long, that will fit snugly over the rod. Weld each end of the push-rod as shown, and you will be in business again.—B.B., Ont. ✓



Made a Pump Jack

I converted a discarded cream separator into a pump jack. I took the spindle out and welded an extra 1½" onto the shaft to take a 6" V-pulley. For the pitman I used ¼" x 1" flat iron, 12" long. Note in the illustration that I added a plywood platform with braces and a brass bushing set in it. Also I sawed off the crank and drilled a hole 2½" from the center to give a 5" stroke. —H.P., Man.

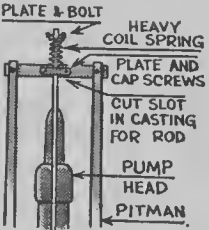


Easy Unhitching

A rope or light chain attached to the tractor seat and the drawbar pin enables you to unhitch implements from the scat. It also prevents the pin from getting lost.—B.B., Ont.

Pump Cushion

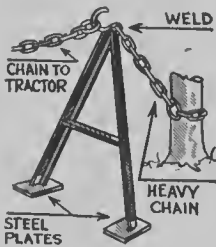
I bought a used pump jack and motor, and found that the part that connects the crosspiece to the pump rod was missing. It had been replaced with a ring and some hay wire. So I used a heavy plate and cap screws, and cut a slot in the cast-



ing for the pump rod. The plate was bolted onto the pitmans. In order to eliminate the heavy jar that was caused by the cranking of the pump jack, I placed a fairly heavy coil spring against a pin (a bolt could be used) through the pump rod. This cushions the jolt and avoids breaking the pump rod.—C.M., Sask.

Portable Stump Puller

Here's how to make a very effective stump puller that is easy to move around. Two heavy angle irons, 4' long, are welded together at an angle of 40 degrees. Then a brace is welded to the legs, about half-way up. A steel plate at the foot of each leg completes the frame. Next, a 4' length of logging chain is welded to the peak by means of a strong hook. The other end of the chain has a steel ring welded to it. The chain is looped over the stump, and a tractor is attached to the hook with another chain for pulling.—H.A.B., Alta.



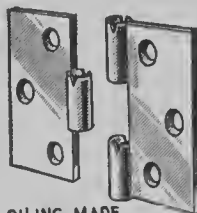
Paint Both Sides

You can paint both sides of a board without waiting for one side to dry. Drive a brad through each corner of a piece of scrap lumber, then support the board atop the

brads. You can reverse the board and paint both sides because the brads leave only a faint mark.—S.C., Fla.

Easier Hinge Oiling

Tight, squeaking door hinges are simpler to lubricate if they're altered as shown in the sketch. All you do is remove the hinge pins, take a small triangular file, and cut two notches in the upper side of each section. When the pin is replaced, the notches provide oil openings and squeaks are easily cured.—H.E.F., Tex.



OILING MADE EASY BY NOTCHING DOOR HINGES

Screwdriver Trick

A nut welded onto the shank of a screwdriver will greatly increase the leverage. This means that when you hit a tight screw you simply put a wrench onto the nut, turn, and the chances are that even the toughest nut will submit.—B.B., Ont.



Radio Booster

If you have a portable transistor radio, wrap 3 or 4 turns of insulated wire round the set and ground one end, or move the set close to your telephone cord. Reception is boosted measurably.—H.J.M., Fla.



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HYPRO PUMPS for tractor PTO mounting fill more farm jobs than any other kind . . . mainly because you have a choice of so many types and sizes.

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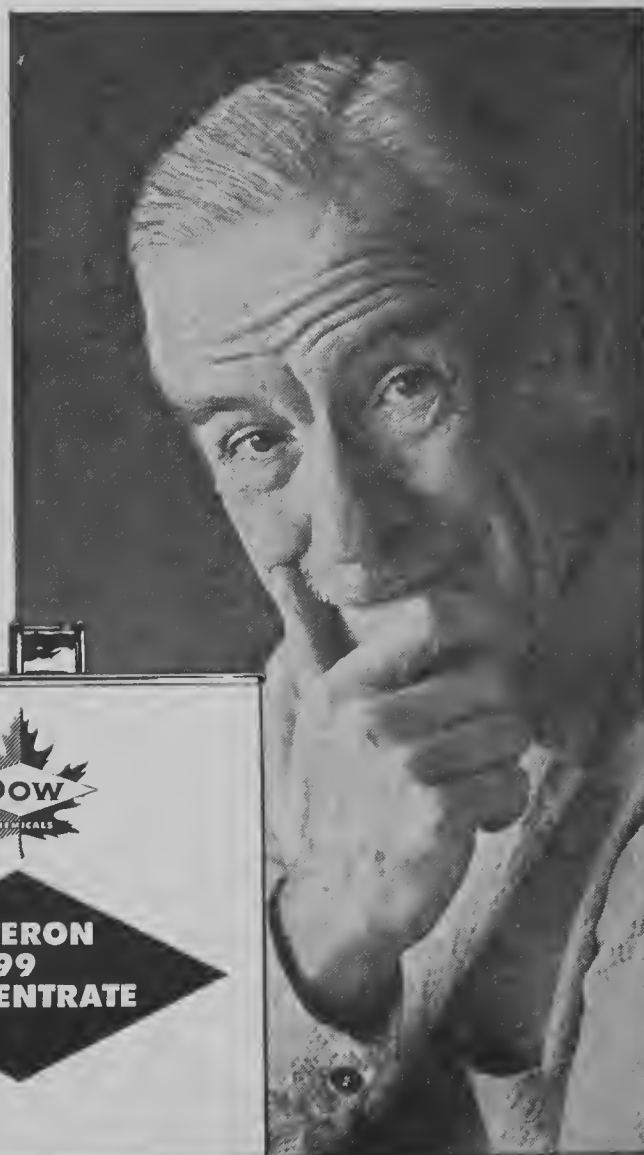
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Esteron 99* Concentrate is a low volatile 2, 4-D Ester-type weed killer effective on a wide variety of broad-leaved weeds including tough species like thistle and wild buckwheat. Esteron 99 Concentrate is low volatile, providing an added advantage if sensitive crops are nearby. Mixes easily even in hard water, won't settle out in the tank, won't clog nozzles. Start your Esteron 99 Concentrate programme today.

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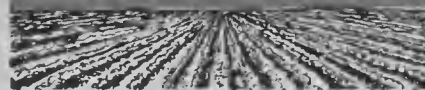
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E V E R Y W H E R E I N T H E W E S T

SOILS and CROPS



Guide to Seeding Program

TESTING the effect of temperature on seed germination, the Lethbridge Research Station found that emergence of seedlings of most crops was more rapid as temperature rose from 40° to 80° F. But the fastest rate of emergence for such crops as alfalfa, sugar beets, orchard grass, and creeping red fescue was at a soil temperature of 67°.

Setting speed of emergence aside, a high percentage of seedlings emerged at all temperatures studied, in the case of spring wheat, barley, oats, brome, and wild oats. This indicates that good stands may be expected when the crops are seeded at any temperature between 40° and 80°. This is provided that other conditions are favorable to germination, and that wild oats dormancy is broken.

Mustard and canning peas had the highest percentage of seedling emergence at 40°, and the lowest at 80°. The percentage of emergence of flax, alfalfa, sweet clover, and orchard grass was highest at intermediate soil temperatures, which indicates that seeding of these should be delayed until after the seeding of the crops previously mentioned.

Corn, beans, sugar beets, and sunflowers had the highest percentage of emergence at higher temperatures. So for the best stands, seeding should be delayed until soil temperature is about 50°.

Soil will be warming up as seeding occurs, and its temperature will not stay constant. Furthermore, the above statements refer to temperatures of germination and not to the frost tolerance of seedlings. But the information should still be useful for setting up a seeding schedule. V

Hardpan Cultivation

SOLONETZIC or hardpan soils seem to pose problems for farmers on 15 million acres of the Prairies. But much of the land has a thin fertile cover on which crops can be grown. Dr. R. R. Cairns of the Canada Department of Agriculture says the secret of successful cultivation is simply to follow the usual good farming practices for the region.

After 4 years of tests at Vegreville, Alta., Dr. Cairns recommends cultivating summerfallow regularly, preparing the seedbed to a good tilth, and keeping the soil fertile. Tillage to a 12" depth costs more than ordinary tillage and gives no higher yield of cereals.

Solonetzic soils are fairly level and have 3" to 6" of moderately fertile topsoil. The subsoil is a cement-like mixture of salts and clay. In some spots, Dr. Cairns admits, it is too hard for profitable farming. V

SOILS AND CROPS

Make Use Of Runoff

SOME areas that lack water in the growing season also suffer from excessive runoff in the spring. If part of spring runoff can be stored in the soil, it will serve the double purpose of reducing water erosion and increasing the moisture available for crops.

D. W. L. Read of the Swift Current Experimental Farm, Sask., says the first step in using runoff water is to determine where the water flows and how much is flowing. Go out and see the runoff while the snow is melting, note the course and amount of water, and the level of land where water may be used.

Storage of moisture will depend on local conditions. In some cases a small dam or dugout will hold water during the summer; in others, a series of dikes will hold water for a short time and add moisture to the soil. Contour dikes and ditches can spread water over a greater area than it normally covers. To get the best design for a particular location, some engineering services will be needed.

Before starting work, study the soil and see if it is suitable for crop production when extra water is added. Areas that have a high enough soil content to limit crop production, may not be worth spending money to improve moisture

conditions. Remember too that water rights must be obtained before any water can be diverted.

The cost of using runoff water will depend on conditions. One farmer points out that if he gets one more ton of hay per acre from the area while the project lasts, it will more than pay the cost of construction. Other projects may be much more expensive. However, on a large proportion of farms in Western Canada, some money spent to conserve moisture from spring runoff would be a good investment. V

Guard Against Tartary Buckwheat

IF you buy unregistered seed grain from a neighbor, make sure it's not contaminated with tartary buckwheat seeds. The Manitoba Department of Agriculture warns that this is a growing menace in the province.

Seeds of tartary buckwheat are practically inseparable from wheat when using ordinary farm grain cleaning equipment. Grain cleaned at the elevator may be even more dangerous because the elevator is itself a source of contamination.

Avoid tartary buckwheat infestation by cleaning and sowing your own grain, buying seed grain cleaned by a commercial cleaner, or buying certified grain. It's a tough weed to destroy by herbicides or cultivation. V

Tobacco Gaining Maritime Foothold



[Guide photo] Charles Thibert rated P.E.I.'s crop high. He lives at Rodney in Ontario tobacco country and grew tobacco in Quebec, before he headed for P.E.I.

MARITIME farmers are ready to take the plunge into the potentially lucrative tobacco business, now that evidence has piled up that the golden-leaved crop can be grown successfully.

Prince Edward Island's 17-acre crop of 1960 yielded 22,000 lb. of high quality leaf last year. It was good enough to bring an average of 54 cents per lb. when put through the auction ring in Ontario. This was the second successful tobacco crop

in the province. Both were grown by the provincial department of agriculture, whose officials believe tobacco can become a major industry in the province.

Now, at least 5 growers plan to each build a kiln and try their luck with 5 acres of the crop this year. At least one Ontario tobacco grower has bought land on the Island too, with the intention of growing a crop.

To help the new growers, the provincial department of agriculture plans to grow seedlings for them this year, and one of the big tobacco processing companies will be sending a production specialist into the area.

Meanwhile, in Nova Scotia's Annapolis Valley, where tobacco has been produced for five consecutive years by scientists at the Kentville Experimental Farm, farmers are believed ready to begin growing on their own farms. Extension specialist Ed Shuh of Truro expects 4 or 5 farmers will each build a kiln and grow about 7 acres of the crop as a start. The provincial government will grow seedlings for them, and sell them to the growers at cost. Then, a harvest gang can work from farm to farm, taking off the crop.

Provincial government officials there say tobacco could become a \$4 million industry, or double the size, dollar-wise, of the famed but faltering apple industry. V

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SOILS AND CROPS

Corn—Our Best Silage Crop

*Interview with Prof. George Jones
of the Ontario Agricultural College*

Q. Professor Jones, why do you call corn our best silage crop?

A. Properly made, corn silage is our most palatable and digestible stored forage. It yields the most digestible nutrients per acre. Growing and handling the crop today is simple too.

Q. What do you mean, growing a crop of corn is simple?

A. First of all, adequate information is available on how to grow corn successfully. Good hybrids are available for every area in Ontario. Fertilizing and soil management techniques can be prescribed with confidence. Even cultivation is hardly necessary now because selective herbicides will control weeds.

Q. You said *handling* the crop is simple too. Will you explain that?

A. Once the crop is grown, handling can be mechanized. Corn harvesters and blowers will put the crop into upright silos. Mechanical unloaders will take it out again. Conveyors will put the silage right into the feed bunks. Equipment is available to add the specified amount of supplement and mineral as the silage comes from the silo too. This is "push-button farming."

Q. How do you select the right corn hybrid to grow?

A. See your agricultural representative for a list of recommended hybrids. Select 2 or 3 of them of slightly different maturity, and try them out. If normal silo filling time is September 15, your corn should be at least half-tasseled by August 1 (45 days from tasseling to silo-filling time). In particularly good corn years, the crop must be harvested earlier than normal. When the kernels are well-dented and their caps have a glazed appearance, the total crop is about 70 per cent moisture. It will make quality silage then and won't drip juices from the silo.

Q. Have you any further tips on growing the crop?

A. The key to quality corn silage is in the ear. Those ears should contain half the dry matter weight of the crop, and 70 per cent of the feeding value of the crop at time of harvest. This means, that the grain must be almost mature before the crop is harvested. The best crop for the silo is a grain hybrid, grown to produce maximum grain yields. The corn must be mature, so the silage will be sweet, not soft and sour. An animal will voluntarily eat nearly twice as much digestible dry matter of a well-matured corn as it will eat silage made from immature corn, and will thus require less grain supplementation.

Q. How does corn tie into the average farm's forage program?

A. Most livestock farmers grow both hay and silage, and these two crops are completely interchangeable, for both dairy and beef cattle. Good hay represents cheap protein—good corn silage, cheap energy.

A sound program for a dairy farm will probably include good pasture, good hay and good corn silage. The corn silage will be fed the year round. In summer, the cows will eat very little silage when pasture is lush, more when it is scarce. In the winter, silage is full-fed, hay is offered free choice and the ration is supplemented with a grain mixture. A slight revision in this program

would make it suitable for a beef farm.

Q. Could you give some specific examples?

A. Consider a 1,200 lb. dairy cow producing 40 lb. of 4 per cent milk. She will eat 80 to 100 lb. of good corn silage per day. About 9 lb. of grain, along with protein and mineral supplement, will round out her ration. You can substitute high quality hay for the silage at the rate of 1 lb. for 3 of silage. Corn silage is excellent for heifers too, when supplemented with protein and minerals.

An 800 lb. yearling steer will gain over 2 lb. per day when fed 40 to 45 lb. of silage supplemented with protein and minerals.—D.R.B. V

Sweeten The Inoculant

A SUCCESSFUL way to inoculate legumes is to mix molasses or corn syrup with the seed and inoculant. This will keep the nitrogen-fixing bacteria alive in the soil for as long as 2 or 3 weeks, according to the North Dakota extension service.

They recommend a 10 per cent syrup solution mixed with the inoculant and seed just before planting, because bacteria on inoculated seed lives only a short time out of the soil.

The treatment is designed to keep bacteria alive in soils which don't have enough moisture for them. V

Make More Money in '61, Cost On Every Bushel — With ELEPHANT BRAND

Every crop season thousands of prairie farmers use Elephant Brand to increase the yield of their crops and make more money.

Fertilizing wheat, oats, barley, grassland and other crops is now accepted as good, sound farming practice.


If you have never used fertilizer arrange to fertilize at least one field this coming season. If you have been using fertilizer, this year try using heavier application rates. Many farmers have realized even larger returns from fertilizer when they increased application rates.

Field Work Shows Value of ELEPHANT BRAND Fertilizer on Farms in Manitoba, Saskatchewan and Alberta

In 1960, Cominco, in co-operation with 16 farmers on the prairies, carried out field scale demonstrations with Elephant Brand fertilizer.

The table at the right shows some of the results of these demonstrations with wheat, barley, oats, flax, rape, and grassland giving the farm locations, crop, increased yield due to fertilizer and extra profits per acre.

The extra profit per acre shown in this table takes into consideration a number of factors such as cost of fertilizer, local market value of crop, etc. For this reason the extra profit figures do not necessarily relate directly to the yield increases.

	FARM LOCATION	INCREASE IN YIELD PER ACRE DUE TO FERTILIZER	EXTRA PROFIT PER ACRE
WHEAT	Forestburg, Alta.	9.0 bus.	\$ 8.19
	Lake Lenore, Sask.	4.9 "	\$ 4.76
	Grandora, Sask.	4.2 "	\$ 3.29
	Balcarres, Sask.	6.4 "	\$ 4.80
	Saltcoats, Sask.	5.3 "	\$ 4.64
	Gilbert Plains, Man.	9.5 "	\$ 8.25
	Deloraine, Man.	13.9 "	\$13.89
	Meadows, Man.	11.2 "	\$10.07
	Franklin, Man.	11.7 "	\$11.29
	Franklin, Man.	4.2 "	\$ 2.72
BARLEY	Graysville, Man.	12.0 "	\$10.73
	Clyde, Alta.	15.0 bus.	\$ 8.11
	Forestburg, Alta.	13.6 "	\$ 8.33
	Conrich, Alta.	35.5 "	\$19.20
	Prince Albert, Sask.	15.6 "	\$ 7.97
	Lake Lenore, Sask.	5.2 "	\$ 1.46
	Nipawin, Sask.	25.9 "	\$12.28
	Nipawin, Sask.	15.7 "	\$10.09
	Grandora, Sask.	5.0 "	\$ 2.00
	Balcarres, Sask.	12.0 "	\$ 5.16
OATS	Deloraine, Man.	24.9 "	\$14.85
	Meadows, Man.	16.5 "	\$11.79
	Vermilion, Alta.	20.7 bus.	\$ 5.12
FLAX	Saltcoats, Sask.	6.9 "	\$ 1.40
	Graysville, Man.	21.3 "	\$ 7.12
RAPE	Vulcan, Alta.	2.6 bus.	\$ 4.45
BROME-ALFALFA	Lake Lenore, Sask.	105.0 lbs.	\$ 1.81
	Clyde, Alta.	1.6 tons	\$24.92
	Vermilion, Alta.	1.0 "	\$12.77
	Forestburg, Alta.	0.44 "	\$ 1.80
	Conrich, Alta.	1.0 "	\$13.53
BROME	Grandora, Sask.	0.70 "	\$ 4.62
	Vermilion, Alta.	1.0 tons	\$10.48
BROME-CRESTED WHEAT	Conrich, Alta.	0.9 "	\$11.53
	Vulcan, Alta.	0.7 tons	\$ 7.55
CLIMAX TIMOTHY SEED	Nipawin, Sask.	194 lbs.	\$57.86
CRESTED WHEAT GRASS SEED	Deloraine, Man.	143.9 lbs.	\$11.15
GREEN FEED OATS	Prince Albert, Sask.	0.43 tons	\$ 2.05

GET MORE FROM YOUR LAND WITH ELEPHANT BRAND

How to Test for Sulphur

IT will pay to know whether your soil is sulphur deficient, especially as sulphur is cheap and the amount needed is small. Dr. J. A. Toogood of the University of Alberta points out that soil testing does not help in this case, but he has a simple method for finding whether sulphur is needed or not.

Take a pound of flowers of sulphur, divide it into four, and mix each quarter-pound well with a gallon of moist soil. Each of the four portions of soil-sulphur mix is then broadcast evenly on one square-rod in different parts of a legume

field. Early spring is a good time to do it.

Have a little patience, because there will be no immediate effect. In fact, a few weeks or even months could pass before results might be assessed. Sulphur has to be oxidized by bacteria and converted into soluble form before plants can use it. If weather does not lend itself to bacterial activity, results may not show until the second year.

On soils deficient in sulphur, application has resulted in greatly improved yields. Legumes benefit most; cereals only when following legumes, on account of increased organic matter resulting from improved legume growth.

D. R. Walker of the Lacombe

Experimental Farm says that in central Alberta from Thorsby to Sundre and from the Foothills east to the black soil zone, 46 per cent of soils tested were sulphur deficient. In these districts and on gray-wooded soils, farm tests would be useful.

Red Clover with Oats

IF land is clean and you don't expect to spray for weed control, broadcast a few pounds of red clover on each acre of a field seeded to oats. It won't interfere with the grain crop, and you'll gain in nitrogen and organic matter when you turn the stubble over, says C. H. Kingsbury of the Ontario Field Crops Branch.

White Leaf Tips Reveal Boron Lack



[Guide photo

ALFALFA is a heavy feeder on boron, and once a deficiency of this trace mineral occurs in the soil, the leaf tips turn white. That's what scientist Frank Calder of Nappan Experimental Farm, N.S., is finding in these greenhouse trials. He says that a boron deficiency can be a serious problem, especially in the Maritime provinces. It can be remedied by purchasing fertilizers which include boron.

Lower Your Production Fertilize All Your Crops

ELEPHANT BRAND Fertilizers Actually Lower Production Cost of Every Bushel of Grain

Elephant Brand fertilizer reduces the cost of producing each bushel because production expense is spread over the larger crop. For example if, without fertilizer, it costs you \$17.00 to produce 20 bushels of wheat, your production cost per bushel is \$17.00 divided by 20 or 85 cents. However if you spend an extra \$2.75 for fertilizer and increase the yield to 30 bushels, production cost per bushel drops to \$17.00 (plus \$2.75) divided by 30 or 66 cents per bushel . . . and as shown in the pie chart (at right) when you cut the cost of producing each bushel, your profit on each bushel increases.

Here are average comparative figures when wheat, oats and barley are fertilized.

	WHEAT	BARLEY	OATS
Production Cost Per bushel (Unfertilized)*	85¢	61¢	43¢
Production Cost Per bushel (Fertilized)**	66¢	45¢	34¢
Extra profit per bushel Due to Fertilizer	19¢	16¢	9¢

*Assumes production cost of \$17.00 per acre and yields of 20 bu. of wheat, 28 of barley and 40 of oats.
**Assumes production cost of \$19.75 (\$17.00+2.75 for fertilizer) and yields of 30 bu. of wheat, 44 of barley and 58 of oats.

ELEPHANT BRAND HAS WIDE RANGE OF SUPERIOR FERTILIZERS FOR USE ON WESTERN SOILS

There are eleven high analysis Elephant Brand dry fertilizers. This line of top quality products will enable you to obtain the right fertilizer for your crops. All are free flowing, pelletized fertilizers. Call your dealer now and plan to make more money with Elephant Brand in '61.

IT PAYS TO CHOOSE FROM THE ELEPHANT BRAND LINE

11-48-0	16-48-0	16-20-0	23-23-0	27-14-0
10-30-10	13-13-13	14-14-7	AMMONIUM SULPHATE (21-0-0)	
NITRAPRILLS (33.5-0-0)		UREA (45-0-0)	ANHYDROUS AMMONIA(NH ₃) 82-0-0	
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- * Strong, weather-resistant, non-slip bags for fast handling.
- * Fast, reliable service, assured by adequate dealer stock.
- * Advice on fertilizer programming from a man who knows fertilizer — your Elephant Brand dealer.

Frozen Chemical Can Lose Its Zing

CHECK your herbicides and insecticides if they've been stored at temperatures below freezing. W. C. Allan of the Ontario Agricultural College points out that active chemicals are liable to freeze and crystallize out of the solution. If that happens, they might not be so effective.

A chemical company reported that a farmer bought a 50-gallon barrel of insecticide, saving a dollar per gallon because of the size of the purchase. He didn't use all of it the first year, so the barrel sat out all winter under the gas storage tank. When spring came, he applied what was left to an old sod field and the control was extremely poor.

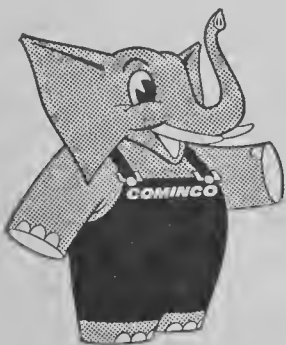
Bigger Seed, Less Loose Smut

PLANT only the large kernels and reduce loose smut on barley. A. D. McFadden of the Lacombe Experimental Farm, Alta., has found that small seeds have 5 times as much loose smut, and medium seed 3 times as much, as the big kernels have.

The disadvantage is that 500 lb. of bulk grain normally yields only about 100 lb. of large kernels, and therefore seed cleaning costs increase. But set against this is a general lowering of loose smut in the crop and in surrounding areas through using larger kernels.

Soil Test Upped Value

IT pays to take notice of soil tests. Tom Lane of the Ontario Agricultural College says that farmers who fertilized oats last year according to soil tests got a return of \$1.45 for every \$1 invested in fertilizer.



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SOILS AND CROPS

A Forage Program That Isn't in the Books

Ideas like year-round hay feeding, clipping pastures in May are helping to cut Avery's feed costs

HUBERT AVERY baled up some overly green hay a couple of years ago and then decided to try feeding it to the cows right away in case it would spoil. He was surprised to find that they relished it too, even though they were grazing on excellent pasture. Right then, he wondered if he had stumbled onto another money-saving idea.

Now, all summer long his cows munch good hay (he never offers them poor hay—they wouldn't eat it). They can eat their fill during the 1½ hours morning and evening that they are being milked. And Avery has found that production remains high, even without grain or protein supplement. It's another trick he uses to reduce his off-farm purchases and boost his farm profits.

Like a lot of farmers nowadays, Avery must use every trick in the book—and a few that aren't there as well—to cut costs. Part of his 100-acre farm at Brockville, Ont., consists of light land. He must produce enough feed for his 25-cow Holstein herd on it. While he gets fluid milk prices in summer, the end of the tourist season means the beginning of condensed milk prices. That makes cost-cutting a grim necessity.

Avery is a husky fair-haired man with an intense manner, and he studies pasture and hay programs with the zeal of an inventor on the brink of completing a new gadget. He is a judge in the Ontario pasture improvement competitions, and he not only judges pasture programs across the province, he learns from the ideas he finds on them. He applies the best ideas on his own farm too.

In Avery's view, good grass is a balanced ration in itself; for it can contain 16 per cent protein. It's the almost perfect cow feed. He does his level best to be sure that it doesn't lose nutrients between the time it is cut and when it gets to the hay mow.

ONE secret of high protein hay, he has found, is early cutting. He laughed at the idea of cutting hay the first of June when it was first broached. Now, he is one of the first men in eastern Ontario each spring to head for the hay field with a mowing machine.

It pays off, for in winter, although his market is the milk condensery, he still pushes his cows for high production. He feeds hay and grass and corn silage, along with some 16 per cent ration made up of his own grain mixed with supplement.

He was skeptical of the place of hay conditioners on a small farm too, when he first saw them, but he bought one last year. Why? Because he found it could help him cut hay early, when protein content was around 16 per cent, and still get it

into the barn without much danger of weathering.

Another idea he uses is clipping a pasture field in early May, just when the cows are going to grass. He clips one that hasn't been grazed,



[Guide photo] H. Avery gave up permanent pasture but he has plenty of other ideas.

and by late June, when the flush of spring grass is over, early aftermath is ready there.

He uses other more commonly accepted ideas too, of course. He has electric fences for rotational grazing. He plants sudan grass if he sees the need for an emergency pasture crop shaping up by early summer. He tests his soil regularly and fertilizes it as required.

In short, he is continually planning for any possibility, whether drought or flood or a normal season, to be sure he has an unlimited supply of the cheapest feed he can grow—high quality forage.—D.R.B. ✓

Check Moisture For Wheat Seeding

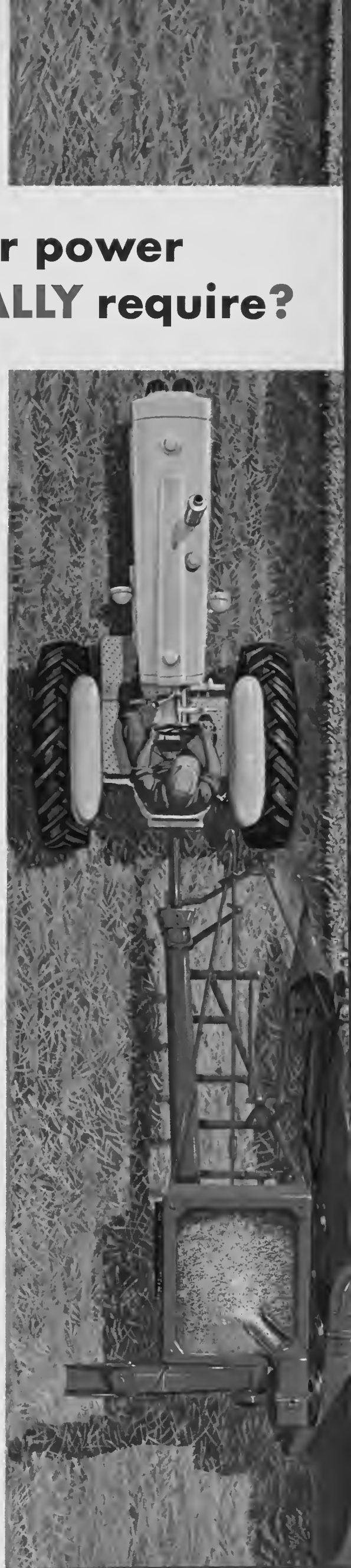
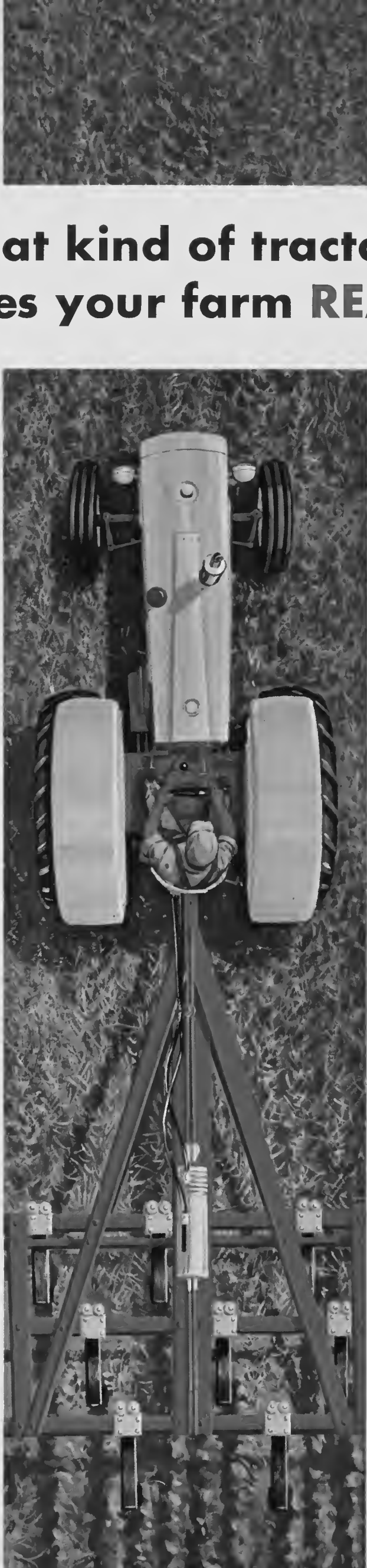
IF wheat is seeded into dry soil, the chances of getting a 15-bushel crop are slim. D. W. L. Read of the Swift Current Experimental Farm says that wheat yields in the Prairie Provinces depend on stored moisture, as well as rainfall.

Stubble land is more likely to be deficient in soil moisture at seeding time than fallow is. Stubble land should not be seeded in areas of low rainfall unless it has ample moisture. Clay soil should be moist to a depth of 18", loam to 24", and sandy soils to 30".

Make a soil moisture test with a posthole auger or a 1" bit with extension attachment. Dry soil crumbles easily and falls off the auger.

Amount of water at different depths can be found by squeezing a handful of soil. If it forms a ball and wets the hand, the soil is near its full capacity. A weak ball that crumbles easily indicates that the soil is at about one-quarter of its capacity. Soil that crumbles when released from the hand is dry. ✓

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The Cockshutt "560" Diesel in official tests at Lincoln, Nebraska, set a new fuel economy record for 4-cylinder tractors in North America. Here are proven savings—plus the versatility of Cockshutt work-saving accessories and optional equipment—that make the "560" the best buy in the 4-plow class. Let your Cockshutt dealer Job-Match one of these fuel-misers to your farming operation.



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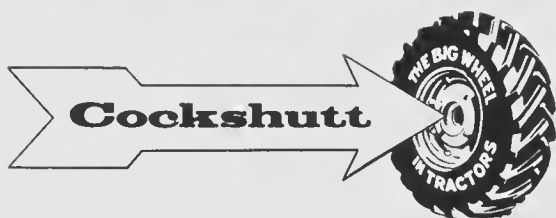
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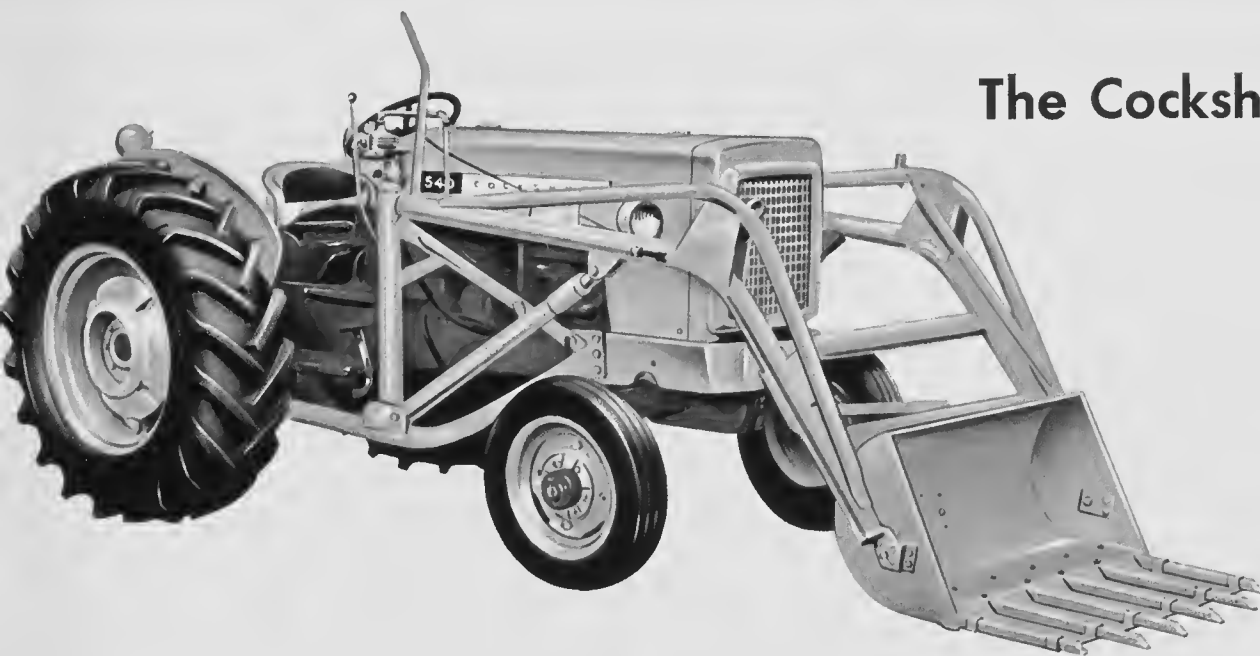
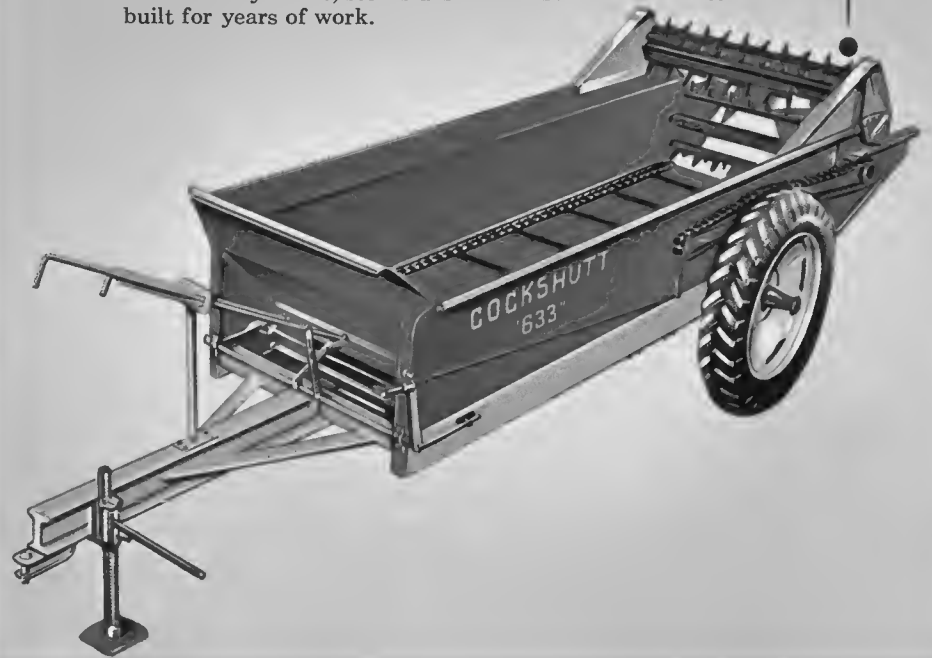
ALL NEW

Cockshutt's "290" Safety-Trip Speed Plow in 3, 4 and 5-bottom models cuts plowing time by hours. Built rugged with a super-strength steel beam and high trash clearance. Anti-friction Timken, tapered roller bearings reduce drag, to save tractor wear and fuel. And, a fully adjustable Trim-Hitch assures straight-through easier pulling, too. Under shock loads the "290" safety standards trip, preventing plow and tractor damage. You simply back-up to re-set standards. The Cockshutt "290" Plow is available with 14" and 16" bottoms and 16" and 18" plain or notched coulters. West or East the new Cockshutt "290" will cut plowing time . . . plowing troubles.



ALL NEW

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Shown mounted on the new Cockshutt "540," this unit also fits the "550" and the Cockshutt "Fiat." Other models are available for the "560," "570" and "570 Super." See your Cockshutt dealer.

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SOILS AND CROPS

For Better Forage Stands

STAN YOUNG of the Ontario Agricultural College offers these ideas for getting the most from forage:

- Prepare a fine, firm seedbed to help germinating seed use moisture and to provide a firm base for the seedling.

- Use fertilizers and manure in amounts recommended after soil test. Low fertility is a main cause of hay and pasture seeding failures.

- Reduce competition from companion crops, using low seeding rates of oats and barley. Grazing off companion crop when it's 12" to 24" high provides good feed.

- Control weed competition by timely cultivation in seedbed preparation, and using recommended herbicides on weeds that survive.

- Seed early in spring. Legumes use spring moisture to grow vigorous plants which survive next winter. August seedings do not survive quite so well.

- Place seed shallow. A firm seedbed helps, and taking pressure off discs on the drill also leaves seeds close to the surface and gives better stands.

- Use the machinery you have. An ordinary seed drill does an excellent job, with care. Band seeding may help where fertility is low. Light seed coverage with a cultipacker is beneficial on loams and light soils, or harrowing on clay soils.

Oats as A Hay Crop

YOU can't beat green oats as an annual hay crop on prairie drylands. M. R. Kilcher of the Swift Current Experimental Farm, Sask., says that with green oats on summer-fallow, cut in the dough stage, they got an average of 2 tons of hay per acre, compared with 1½ tons from millets, 1½ tons each from sunflowers and sorghum, and 1 ton from corn.

Oats don't need special equipment for seeding and harvesting hay; they emerge from a cold soil much better than other groups; and they grow more quickly and are usually harvested well before grain.

Other crops compete poorly with weeds during the cool spring; they grow slowly at first, and if they survive the dry parts of summer, are not ready for harvesting until about early September.

What's Best For Your Flax

IF you are intending to grow flax, you'll find these tips from the Brandon Experimental Farm a useful guide to a better crop:

1. Flax has a shallow root system and is not adapted to droughty conditions. Light soil subject to drifting should be avoided.

2. Flax is susceptible to frost at the early seedling stage. The danger of injury is less after plants have

passed the 2-leaf stage. Don't delay flax seeding more than 2 weeks after wheat seeding commences.

3. Early seeding gives early, uniform ripening. Late seeding generally results in uneven stand and maturity, and often leads to harvesting and threshing difficulties.

4. Flax should not be sown deeper than 1½ inches in firm soil, which is comparatively free of weed seeds and trash. Rate of seeding varies from 28 lb. on light soil to as much as 35 lb. on heavy soil.

5. The seed often looks clean although there may be many weed seeds per bushel. Only good, clean seed of a recommended variety

should be used, preferably registered or certified.

6. An approved disinfectant should be used to protect seed and seedlings from wireworms and harmful organisms in the seed or soil.

Graders Used On Farm Gullies

MUNICIPAL graders were put to work in demonstrations of gully control in Alberta last fall. They did an excellent job, reports C. R. E. Johnson, assistant provincial extension engineer.

A flat bottom, about 15 ft. wide, was cut by the blade of the grader, and the sides were backsloped until the width at the top of the ditch was 30 to 40 ft.

After a gully has been made into a ditch, the waterway should be seeded to a mixture of fescue, brome and a nurse crop, such as oats. The grass impedes the flow of water, binds the soil and increases resistance to erosion. Slopes up to 5 per cent incline can be grassed successfully, according to Mr. Johnson.

During heavy rain or spring runoff, an abnormal amount of water flows down the natural slopes of land and collects in rivulets in the draws. It follows natural drainage systems on the farm. Once topsoil has been washed away, a considerable amount of erosion will occur, and the head of the gully will eat farther and farther into the land. It grows wider and deeper as it progresses.

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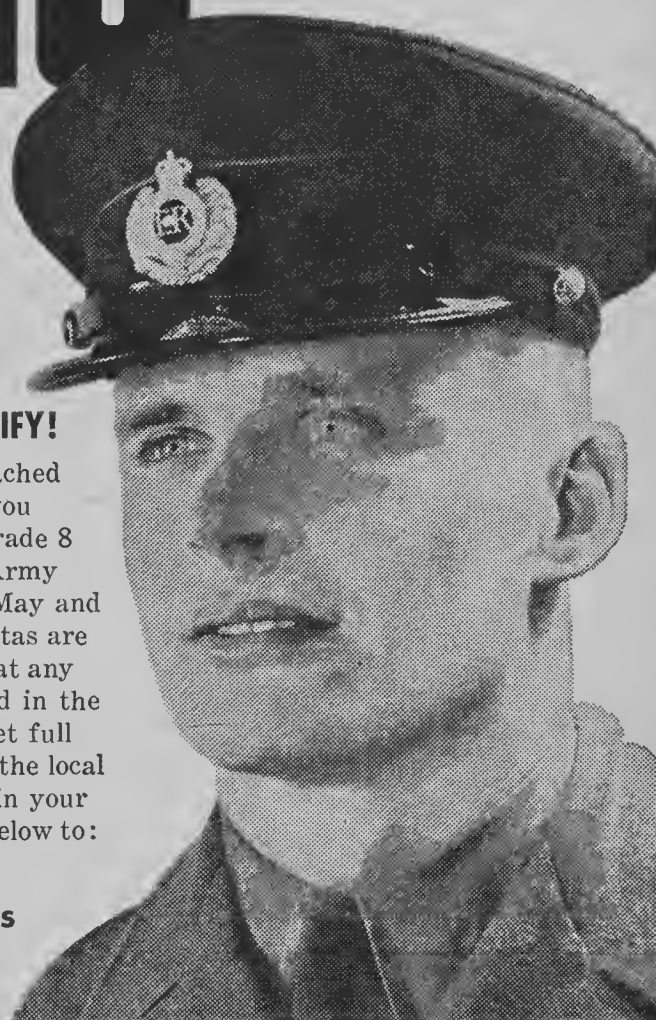
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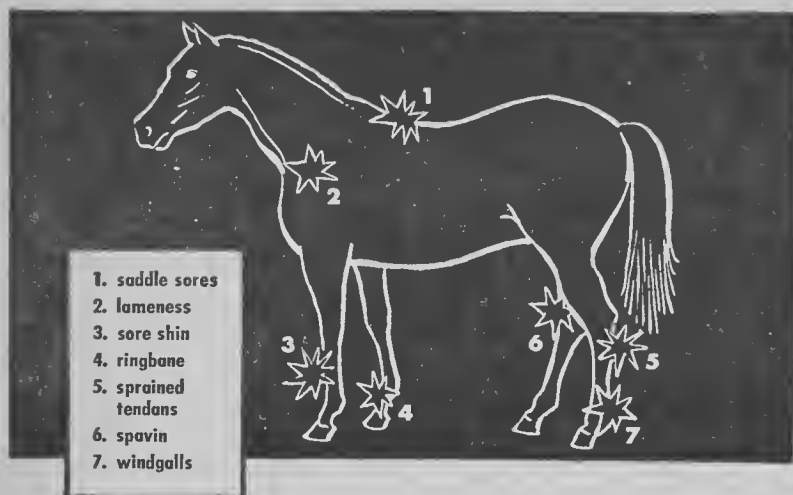
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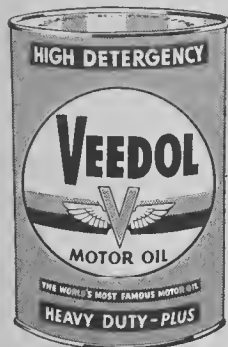
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SOILS AND CROPS

Hints on Shelterbelts

A GOOD shelterbelt for well-drained uplands consists of 1 row of caragana and 2 to 4 rows of mixed maple, green ash, American elm and Manchurian elm. R. H. Dunlop of the Indian Head Forest Nursery Station, Sask., claims that his combination gives a uniform and permanent wind barrier of 25 to 35 feet high.

He recommends poplar and willow for alkali-free soils with a high water table, or in low areas fed by run-off or irrigation water. Poplar needs space and should not be planted next to cultivated land because its roots spread widely and sucker badly.

Mr. Dunlop's recommendation for Prairie farm shelterbelts is Colorado spruce, white spruce and Scots pine. Colorado spruce grows best on heavier clays and is more resistant to insects. Pine needs deep, loamy soil with ample moisture. Set these evergreens in groups at 40 to 50 feet to windward of farm buildings for maximum protection against cold winds. The space between farm driveways and shelterbelts, amply supplied with snow-melt, can be used as gardens, lawns or pastures.

Good on Rapeseed Land

THERE'S a favorable market for yellow mustard, according to Dave Durksen of the Manitoba Department of Agriculture. He says that the 1960 crop in Manitoba, grown mainly on 500 acres in the Teulon area, yielded about 700 lb. of seed per acre. This was about 225 lb. above the average yield in Saskatchewan and Alberta.

Yellow mustard is still a minor crop in Manitoba. Most of it is processed into table mustard in Winnipeg, but a small portion is exported to Europe and the United States. Alberta's mustard acreage was 140,000 acres, and Saskatchewan had 15,600. Much of Alberta's mustard is of the oriental or brown type processed into mustard oil.

Mr. Durksen says that yellow mustard can be grown successfully in those parts of Manitoba where rapeseed grows well, but preferably where wild mustard is not a problem. Cash returns per acre compare favorably with those from wheat. Farmers who are interested should first approach a firm willing to contract for the seed.

Nettles Were One-third of Crop

AS proof that timely tillage and delayed seeding, as well as chemicals, are needed to control some weeds, 48 bushels of oats per acre were harvested from untreated plots, with 800 lb. of dry hemp nettles—or almost half of the 1,632 lb. represented by 48 bushels. Application of MCPA at 8 oz. per acre in the early seedling stage of hemp

nettle reduced it to 400 lb. and increased oat yield to 55 bushels, or 1,870 lb.

This test was made by H. A. Friesen at the Lacombe Experimental Farm, Alta.

Mr. Friesen says lady's thumb, wild buckwheat, tartary buckwheat, and hemp nettle show considerable tolerance for herbicides. The first three are only partly controlled by 2,4-D and MCPA. Careful attention to rates and amounts and times of spraying is essential.

New compounds, such as benzoics, appear promising against wild buckwheat and hemp nettle. CMPP shows similar promise against lady's thumb and chickweed. Early and thorough tillage, slightly delayed seeding and herbicides can greatly reduce wild buckwheat and other annual weeds.

Sugar Beets Still Needed It

USE the standard application of 11-48-0 fertilizer on cereal crops grown after a sugar beet crop, whether or not the sugar beets were harvested the previous fall. This is the advice from the Manitoba Department of Agriculture following last year's experience.

In the fall of 1959, growers were forced to leave about 20 per cent of their beets in wet and frozen fields. In the spring of 1960, they had to disc their beets under before planting cereals, and many were uncertain about a possible abnormal lack of nitrogen in the soil due to decomposing beets. Soils men advised them to use 11-48-0 at the same rate as in normal years, and in the subsequent growing season the recommendation proved sound.

So, Manitoba sugar beet growers should apply 11-48-0 fertilizer to their cereals no matter what conditions prevailed during the beet harvest.

Hard on Alfalfa

GO easy on red clover if you intend to seed a forage mixture with alfalfa in it, says C. Kingsbury of the Ontario Department of Agriculture. More than 2 or 3 lb. of red clover per acre, especially on heavy soils, will crowd out alfalfa before it has a chance to get established.



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HORTICULTURE

Plan Ahead for Wintering Tender Roses

by PERCY H. WRIGHT

EVERY fall, as winter approaches, lovers of the Hybrid Tea and the other modern types of tender roses begin to ask, "How shall I winter my rose plants?" The question is asked too late; the proper time to decide how to winter tender roses is when you plant them out in the spring.

The rose plant ordinarily bought and planted out is a grafted or budded plant, with the root portion a wild rose from Japan named Multiflora, and the above-ground portion the named rose having the attractive, double, long-stemmed flowers for which we grow the plant. Both are tender in the prairie climate, but usually the named variety is somewhat more tender than the wild understock. Thus it happens again and again that if a plant dies back to the ground line in winter, only the wild root comes up in the spring.

The remedy for this suggests itself. Set the rose plant deep, with the bud, or point of union between root-stock and named variety, definitely below ground. When this is done, if the plant kills back to the ground line, it has a chance of sprouting again from above the point of union, and so turning out to be the valued rose rather than the wild one represented in the root. Planting with the point of union as deep as 6 inches has been successful in numerous cases, but 4 inches is perhaps sufficient.

TWO objections are made to such deep planting. One is that it puts the roots too deep, where they cannot feed in the warm surface soil. This objection can be overcome by laying the plant on its side, with only the tips of the pruned plant protruding. This gets the point of union deep and the root relatively shallow all in the same operation.

The other objection is that roots will be formed above the point of union, and the named variety will become own-rooted. This is true of many varieties of tender roses, but not of all. Farther south of us, where the climate is mild enough that the Japanese understock is hardy and the tender rose still tender, it may be desirable to avoid own-rooting. But in prairie Canada enough mulch is going to have to be put over the rose-bed to protect the understock, and when this is done, the roots, whatever they are, will be adequately protected anyway.

Besides, when the branches of a rose produce own-roots, they can be dug up and divided, making new plants. Not many people are likely to object to the opportunity to mul-

tiply their roses without having to pay for them.

Another thing, plant your tender roses in beds, rather than solitary. Deep frost can penetrate sideways in the soil as well as down, and if you cover a plant with straw or other insulation to the width of a foot or so, frost penetration from outside the mound of insulation toward the center can kill the root in spite of the insulation. This means that the insulating mulch should extend at least 4 feet on every side of the plant, and it takes a lot of mulch material if you have many plants that are scattered, and if you mulch to the depth of 2 feet or more, which is recommended. If your tender roses are planted in beds, much less mulch material will be required.

Now that spring has come again, it is time to think about methods of planting which will make the task of protecting rose plants next winter an easier one. Hilling up the plants with soil as winter approaches is no substitute for deep planting, for often the rose bark is so green and tender that it will rot when covered with soil late in the season. In spring this does not ordinarily happen. Rose bark that is mature does not easily decay from contact with the soil. ✓

Plastic to Mulch Vegetables

TOMATOES, corn, beans and cucumbers had their yields doubled by using polyethylene as mulches and shelters. J. Aitchison of the Fort Vermilion Experimental Farm, Alta., reports that vegetables under clear plastic mulch produce higher yields than under black plastic. But although clear plastic advances harvesting by 10 to 12 days, black plastic is better for weed control.

Mr. Aitchison recommends 36" wide plastic mulch for corn, cucumbers, and tomatoes when they are in the open. Once the soil is prepared for planting, lay the plastic over and anchor it. The edges of the plastic are placed in a 3" deep trench, and the trench is filled with soil, which is tramped down to hold the plastic.

For corn, cut openings about 2" diameter every 12" down the center of the plastic strip. Place 2 or 3 seeds in the soil with a trowel. When the corn is 2" or 3" tall, remove the weaker seedlings by hand, leaving 1 plant in each hole.

The procedure is the same for other garden crops, except that spacing varies. Cut holes for tomatoes every 30", for lettuce and many small early vegetables every 6" or less. ✓

HORTICULTURE

Spring Care For Good Lawns

GOOD lawn care in early spring includes raking, rolling, top-dressing and mowing. The Ontario Department of Agriculture recommends that raking should be light, using a flexible leaf broom. Heavy steel rakes are out. Don't try to remove all dead grass—it rots to form valuable humus.

Rolling is perhaps the most important. It levels the surface for good mowing, and firms the soil so plants make better use of water. One rolling in spring should be sufficient. But if the soil is too wet, rolling will pack it and damage the soil structure, and if it is too dry, the roller will accomplish very little. The roller should be just heavy enough to firm heaved turf back into the soil.

Don't try to roll depressions out of a lawn. Add screened topsoil to depressions, a little at a time.

Early spring mowing can damage grass. Let it grow to 2½-3" before the first cutting. Remember that a sharp mower lessens the chances of pulling turf out before it can re-establish itself. ✓

Merion And Kentucky

AFTER testing Merion bluegrass for 14 years, J. H. Boyce of the Central Experimental Farm, Ottawa, says Merion will produce a far better turf when planted where common Kentucky bluegrass thrives.

But Merion has its undesirable qualities, says Boyce. It is slow to germinate and establish, susceptible to rust and mildew, and seed cost is high. The cost is offset partially by the fact that Merion can be seeded at half the normal rate for common Kentucky.

Merion's advantages are resistance to helminthosporium leaf spot, which damages Kentucky severely; resistance to drought, heat, winter killing and weed encroachment; ability to spread rapidly when established; low height that permits shorter mowing; and general superiority in turf quality and appearance.

Plant Merion bluegrass between mid-August and mid-September in most sections of Canada, because it is slow to germinate and establish. ✓

New Potato From Netted Gem

THE Saskatchewan Russet is a new potato from the University of Saskatchewan. Prof. C. F. Patterson, until recently head of the university's horticultural department, was the first person to cross Netted Gem with another variety, Earline. The result is a potato that matures earlier than Netted Gem, and does not have the bitterness that occurs sometimes in the parent variety.

The Saskatchewan Russet awaits approval by the Canada Department of Agriculture before seed can be sold. ✓

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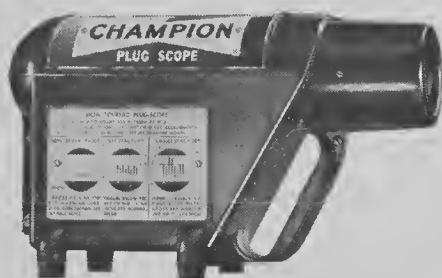
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The contest closes on May 31. Winners will be notified about July 15. They can take the trip any time during the following 12 months. So don't delay. Drive in and ask for your free spark plug check and entry blank *today*!



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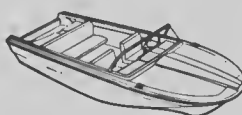
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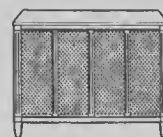
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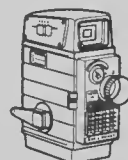
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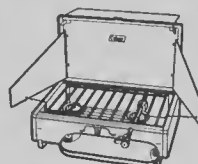
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How to Make "Reddi-Quick" Compost

by J. L. FRANKLIN

FROM now until frost is on the pumpkin is the time to turn every tiny lawn clipping and garden vine into "reddi-quick" compost by shredding and proper curing.

Your material is piled in front of a rotary mower as you run it through. A backdrop behind the material is necessary and this can be a large carton, a side wall, or even a sheet-covered fence, providing storage space for the shredded mass until it can be placed in its special fomenting location. This spot can be an out-of-the-way corner of the garden. An area of 4' x 8' by 8" to 10" high will accommodate 2 tons of this shredded material.

The preferred height of this pile is 4' to 5'. Far better to sacrifice length of pile if material is scant, since height is vitally necessary to good composting.

Nutrition experts agree that nature's fertilizer is far superior to any commercial kind. But if manure is not available, the next best bet for gardeners is to make up every ounce possible from the castoffs in our own living areas.

Beside lawn clippings, leaves and garden refuse of all sorts, there are the inevitable daily table scraps, potato and banana peel, which are bacteria promoters, as well as moist

melon rinds and grapefruit. They break up so much faster when finely cut. These citrus rinds, along with canteloupe, contain a high rate of phosphorus and nitrogen and by decomposing quickly they add their resins and oils to the compost.

All fruit pomace, such as apple, elderberry and grape, the residue from jam and jelly-making, must be spread thinly lest they settle down in one spot and thereby fail to integrate with the fomenting mass. Don't forget your meat scraps, gristle, bone, fats, coffee grounds and tea leaves, which all add their bit.

After the first layer of shredded material is laid in its bed, it is covered with a ½" layer of good soil and 2 double-handfuls of agricultural lime, and then dampened slightly. This procedure is repeated for each succeeding layer.

If this pile is turned with a fork every 3 or 4 days, it will remain light, fluffy and easily turnable. Don't allow it to set into a heavy burdensome load.

You will be happily surprised to find how quickly your "reddi-quick" compost will be begging to be spread around your flowers, vegetables, shrubs and trees; or will hold over until rhubarb time comes. Let's join the rotary brigade of "reddi-quick" composters!

They Doubled Potato Yields

POTATO yields have been doubled on gray-wooded soils by adding 80 lb. each of nitrogen, phosphorus, potash and sulphur per acre to the soil.

D. H. Dabbs and H. Ukrainetz of Scott Experimental Farm, Sask., raised yields of Avon potatoes from 221 to 436 bushels per acre with this application of fertilizer. Tests showed also that 160 lb. per acre of nitrogen yielded 269 bushels, and the same rate of phosphorus yielded 230 bushels per acre.

Other results were: a combination of 80 lb. each of nitrogen and phosphorus gave potato yields of 369 bushels per acre; 18 lb. of nitrogen with 80 lb. of phosphorus yielded 297 bushels; potash and sulphur with nitrogen in unspecified quantities raised yields slightly; ammonium phosphate containing 64 lb. nitrogen, 80 lb. phosphorus and 56 lb. sulphur, applied at 400 lb. per acre, produced one of the highest yields — 396 bushels.

Dealing With "Leggy" Plants

L"EGGY" house plants can be brought down to reasonable size by air-layering (Chinese layering). Don Hoag of the North Dakota College of Agriculture, suggests you use a plastic food bag, or similar piece of plastic, with a handful of

moist sphagnum moss. When your philodendron has grown too tall, choose a spot on the stem 2 to 4 leaves back from the tip, where the new root nubbins are just appearing. Place a handful of moist, well-squeezed moss around this area, wrap it well with plastic, and tie securely at top and bottom with cord or yarn.


After a few weeks, if the plastic keeps the moss moist, roots should be seen through the plastic growing into the moss. Cut the stem below the rooted area, remove the plastic, and pot the new plant with moss and all. Discard the old stump if you don't want it for further propagation.

Other plants that can be air-layered include all large-leaved philodendrons, dieffenbachia, and rubber trees.

Insecticide For Sap Feeders

APHIDS and other insects that feed on plant sap can be killed by systemic insecticides. Apply them with a 1-inch paint brush to a small area of bark at the base of a young or dwarf apple tree. The insecticide moves into the sap stream and is carried to the leaves on which insects feed.

Dr. D. P. Pielou of the Summerland Research Station, B.C., found dimethoate best using 1/15 oz. active ingredient for a 7 ft. tree. Don't use it on bearing trees.



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Minister

POULTRY

Change Needs Credit

THE poultry industry is an excellent example of the place of credit in agricultural business, since technological advances have resulted in greater need for capital. Good management and wise use of capital are of vital importance in this enterprise since the margin of profit per bird is small.

These words were spoken by Dr. J. C. Gilson of the University of Manitoba at a poultry conference, when he outlined the importance of credit to the industry.

Dr. Gilson explained that it was not enough for the lender simply to take an inventory of the farmer's assets, and make or refuse the loan on that basis. Lending institutions should be prepared to advise on credit management; borrowers should know exactly what uses they will make of credit, and be sure they can repay the loan according to an agreed schedule.

In addition, borrowers must be prepared to convince the lender that loans would be wise investments, rather than assume that the lender should be willing automatically to make a loan.

Recently, according to Dr. Gilson, processors have assumed the task of making supervised loans to poultrymen because such loans were not available from traditional sources. The processors simply filled the vacuum of credit. Most of these private firms hired agricultural specialists to supervise their loans.

He suggested that short courses should be offered in Ontario and Western Canada, patterned after the 10-day farm finance schools held every summer at the Ontario Agricultural College. Bankers, businessmen and other investors would be encouraged to attend.

Dr. Gilson emphasized the spectacular technological development in the poultry industry, which placed greater emphasis on sound credit use. He considered that in a few years other farm enterprises would probably undergo as great a technological change, and would rely on credit as much as poultry and egg producers do now.

Keeping The Litter Dry

THE reasons for wet litter are not hard to find. Just think what can be done by 100 hens respiring 6 gallons of water per day, and the same 100 hens tracking through litter after standing around a sloppy fountain area.

Prof. John Walker of the Ontario Agricultural College gives the above as the two main reasons for wet litter. But he suggests that you can help to beat the problem with insulation, ventilation, stirring of litter, and the right placement of waterers.

Install watering equipment upon the dropping pits, where spillage isn't going into the litter. Or put the waterer on a wooden platform, so that water falls through the platform and birds won't track through wet litter.

Fans will help if the house is insulated. The moisture has to be vaporized, and you need animal heat, sun heat, or litter heat to vaporize it. The principle is that the water-holding capacity of the air doubles with every 16° rise in temperature. Professor Walker suggests the equivalent of 3" of rock wool bats on the ceiling, and 2" of bats on the walls.

Birds piling up the litter is another problem. Some people throw (Please turn to page 58)

If BACK ACHES TRY A KIDNEY "HOUSECLEANING"

Do you suffer from Backache, Getting Up Nights, Frequent or Burning, Itching Passages, Strong Cloudy Urine, pressure over the bladder, and Rheumatic Pains due to Kidney and Bladder Irritation? In such cases the very first dose of CYSTEX usually starts to work immediately to help you in 3 ways: 1. Helps nature remove certain irritating non-specific germs in acid conditions. 2. Relieves Rheumatic Pains and tired, aching feeling due to colds. 3. By relieving and calming irritated Bladder tissues it helps reduce frequent or smarting passages day and night. Get CYSTEX from your druggist today. Feel better fast.



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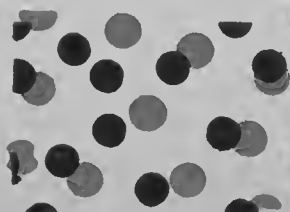
FOR DAIRY COWS

This modern dairy barn houses 30 high-producing Jerseys. Owned by Herbert and Fred Francis of Apohaqui, N.B., this father-and-son combination send over 7 cans of high grade milk daily to a fluid milk market. Milking on a year-round schedule — keeping up monthly quotas — calls for a dairy feed that provides all the necessities — produces lasting results. Long-lasting production, sound herd health — these things come only from proven feed formulae and quality ingredients. These are the reasons why the Francis' chose "Miracle" 16% Dairy Ration to keep their herd in top production.

As Fred Francis says, "I don't care what kind of cow you have. You still have to feed her right to get milk production".

FOR DAIRY CALVES

A Good Milking ration and a good calf growing ration are a profit making team. For years farmers have found that "Miracle" Calf Starter was the answer in getting their young stuff off to an early vigorous growth. Now a new product, "Miracle" Golden Grade Milk Replacer gives the fluid milk shipper a chance to meet his quota and still keep those calves growing as fast as possible. "Miracle" Milk Replacer gives all the body-building elements of whole milk, plus the added protection of medication to ward off infections. "Miracle" Milk Replacer is the ideal first step for your calves, and it's so economical. One hundred pounds of "Miracle" Milk Replacer replaces 1200 lbs of whole milk. Ask for "Miracle" Golden Grade Milk Replacer. You'll be surprised at its low cost.



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- ✓ Operates as low as 1000 RPM and up to 2400 RPM.
- ✓ Delivers up to 12 gallons per minute.
- ✓ Pump can be driven in either direction.
- ✓ Small size permits easy mounting from crank-shaft or timing gear.
- ✓ Weighs only 11 pounds.



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"EXPORT"
PLAIN OR FILTER TIP
CIGARETTES

POULTRY

(Continued from page 57)

litter into a pen and then forget about it. But they shouldn't, especially if the house has windows. Hens like scratching in the light, so the litter often is shallow near windows, and perhaps up to the top of the pit. You must go in and redistribute litter over the floor. Litter serves as floor insulation and prevents moisture condensation.

Litter should be stirred, perhaps as often as once a week. When litter cakes, you should stir it up. Some people throw in hydrated lime. Use 1 lb. of lime per 4 sq. ft. of floor space when litter becomes moist.

The ration is important, too. If birds aren't getting a well-balanced diet, they often drink more water and the droppings will have a higher moisture content. ✓

Are Layers Eating Too Much?

WE may be feeding our growing poultry too well, according to co-operative tests at Ottawa; Agassiz, B.C.; Harrow, Ont.; Ste. Anne de la Pocatiere, Que.; Morden, Man.; and Lethbridge, Alta. The program is headed by Dr. R. S. Gowe of the Animal Research Institute, Ottawa.

Now in its fourth year, the testing runs from hatching to 500 days of age. Groups of chicks are on full feed for the first 3 weeks, and on a restricted ration for the next 18 weeks. They go on full feed again when they enter the laying house at 21 weeks.

J. H. Downs reports from Lethbridge that in the test period ending September 3, 1960, comparing restricted with full-fed, there were significant differences. Total income from the full-fed group was \$4,395 and the feed cost \$4,020. Total income from the restricted group was \$4,413 and feed cost \$3,856. The difference between income and feed cost for the full-fed birds was \$375, and for the restricted group it was \$557. Although these figures cannot be considered as final, they show a trend that is very definite across the country.

It was found at Lethbridge, too, that full-fed birds laid more eggs than the restricted group, but their percentage of large and extra large eggs was less. Furthermore, the full-fed birds laid almost twice as many small or peewee eggs as the restricted birds did.

The cross-Canada results to date have shown higher mortality during restricted feeding, but lower mortality during the laying period than occurred with full-fed birds. Restricted birds were about ½ lb. lighter at 21 weeks of age, but very slightly lighter at 11 months.

A third group has been added in recent tests. These birds have 80 per cent of full feed, compared with 70 per cent for the restricted group. Future comparison will be between the three groups rather than just two groups, as formerly. ✓

Haugh Unit Affects Egg Grading

THE term "Haugh unit" is being heard more and more in the egg business. As it looks as if the term is here to stay, it's worth knowing that it means a measure of quality, which is reached by weighing an egg in grams, and breaking it out on a flat surface where a micro-meter indicates the height of the thick albumen, or white. By means of a chart, the weight and height combined give a direct reading in Haugh units.

Prof. G. C. Hodgson of the Poultry Department, University of Manitoba, explains that the reason why this new technique may be applied successfully to large scale commercial egg production stems from conditions prevailing in the industry. The modern poultryman with a large flock, using up-to-date equipment, feeding, breeding and management, can produce eggs of such uniform quality that they do not need to be candled individually. Mass candling will reveal blood and meat spots, weak shells and cracked eggs. To remain competitive, specialized producers have also set up marketing programs that control the environment of the egg from hen to consumer. Finally, eggs must be marketed in large volume, several times a week, to ensure that they reach the consumer at the peak of their quality.

Each of these steps fits in with the Haugh unit method of paying for eggs on the basis of quality, as determined by drawing a sample from each shipment, or at unannounced intervals. ✓

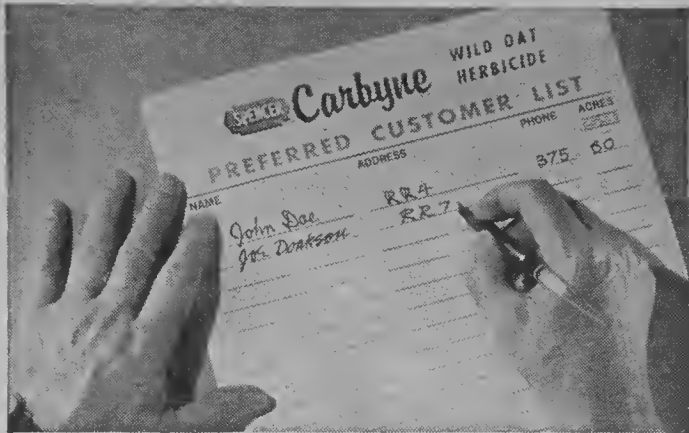
What Does A Broiler Cost?

WHAT is the cost of producing a broiler? Herbert Gasperdone and Nestor Supeene of the B.C. Department of Agriculture reported a 1958 survey of 9 commercial broiler operations in the Fraser Valley, which gave the cost for each pound of live weight:

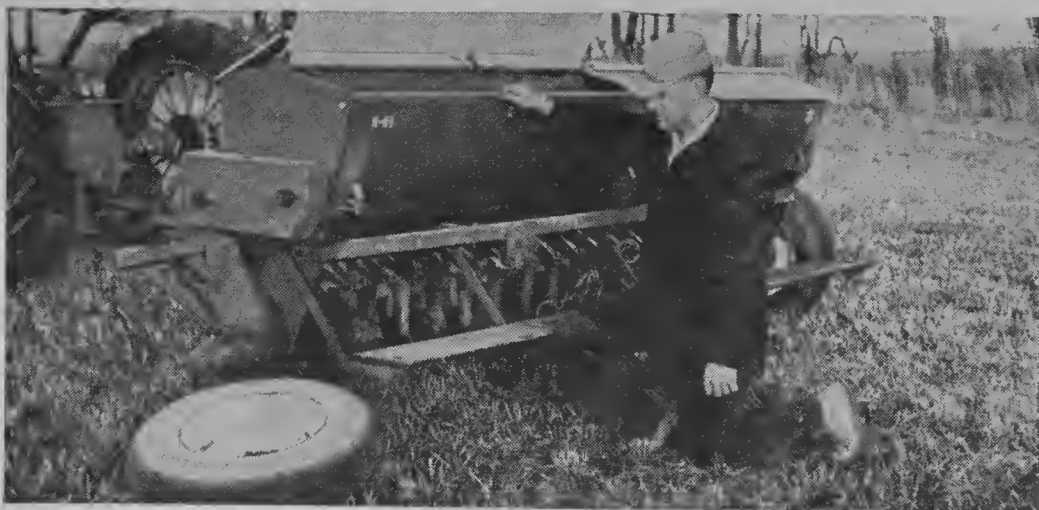
Feed	13.25¢
Chicks	04.76
Cartage	00.79
Brooding and	
Electricity	00.60
Vaccine and	
Medication	00.17
Litter	00.12
Miscellaneous	00.14
Total	19.83¢

Pointing out that the net return per bird is small, they estimate a yearly average income of 10 cents per bird is a good figure to use in calculating labor income. This figure will vary according to market price, management ability, and the incidence of disease. It should be noted that the cost figures given above do not include fixed charges, such as interest on investment, depreciation, insurance, maintenance, or taxes.

Their advice is to pare production costs in terms of small savings. But don't confuse bargain buying with economic production. ✓



1. Be sure to get your share of the Carbyne this year. Reserve your Carbyne by putting your name on the "Preferred Customer List" now at your dealer's.



2. You wouldn't use your grain drill with missing wheels or with some spouts broken off and others pointing in every direction. The same applies to your spray equipment. Check your spray application equipment now and make any needed repairs and adjustments so that you will be ready when the time comes to apply Carbyne!

How You Can Be Prepared To Stop Wild Oats With CARBYNE*

Spraying Spencer Carbyne costs as little as \$3.80 per treated acre—you treat only the infested areas!

THIS YEAR Spencer Carbyne, the post-emergence Wild Oat Herbicide, is being made generally available for the first time. Last year, Carbyne provided successful wild oat control in 2356 farm tests, representing 92% of the farms tested.

Since it is the post-emergence wild oat herbicide, Spencer Carbyne works with maximum economy, as little as \$3.80 per acre covered. Treatment can be confined to those areas, where wild oats are actually visible, so you need not waste your time and chemical on fields which are not infested.

Be Sure To Reserve Your Carbyne Supply In Advance!

Because of the remarkable results obtained with Carbyne last year, the demand for Carbyne may be overwhelming this Spring. Why take chances on being left out? See your dealer right away and reserve your supply by putting your name on his "Preferred Customer List."

For maximum effectiveness, Spencer Carbyne must be applied when the majority of the wild oat plants are in the 2-leaf stage. That's why it is vitally important to have your Carbyne on hand and your sprayer properly adjusted for use when needed.

Get Your Spray Equipment Ready To Go Now:

While no special equipment is required to apply Spencer Carbyne Wild

Oat Herbicide, it will pay you to check your regular spray equipment well in advance of application time. Only by making any needed adjustments and repairs ahead of time can you be ready to spray wild oat plants at the precise time in their growth stage when Carbyne will be most effective!

Be sure tank, nozzles and lines are clean. Your dealer can furnish you detailed instructions for calibrating your sprayer properly.

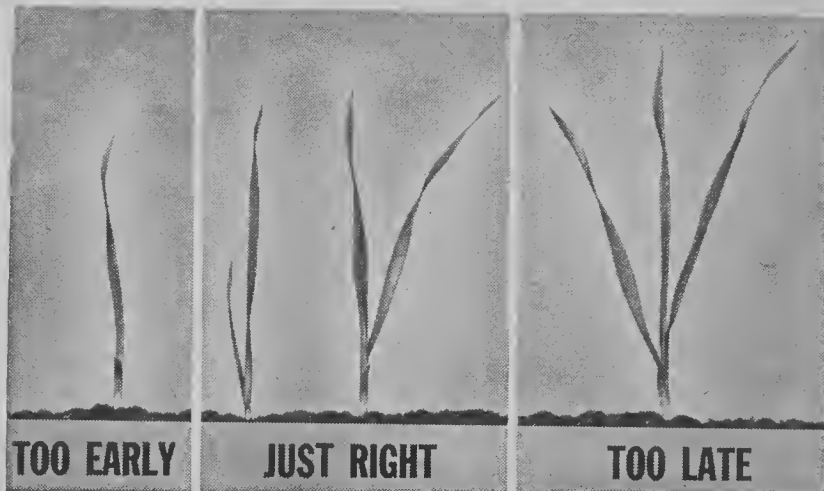
Recommended For Wheat And Other Major Crops:

We recommend Spencer Carbyne for use on: SPRING WHEAT, DURUM WHEAT, BARLEY, PEAS, SUGAR BEETS and RAPE. Carbyne is also accepted for TRIAL USE ONLY on flax.

After cultivating and seeding, check your fields every day so you will know the exact areas where wild oats are emerging. Then determine the most effective time for application by watching the growth stages of the wild oat plants.

Just follow the application directions furnished with your Carbyne, and you can stamp out your 1961 wild oat problem with a single spraying! Prepare now — reserve your Carbyne supply and adjust your spray equipment.

*A trademark of Spencer Chemical Company

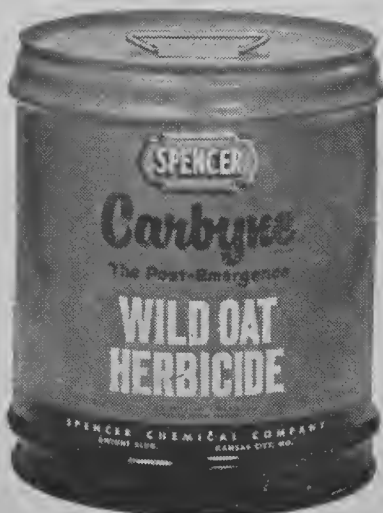


3. These important stages of growth are your guide to effective wild oat control with Spencer Carbyne. Take time now to make sure your spray equipment will be ready at 2-leaf time.



4. Keep a careful check on your fields after seeding. Sample a number of one-foot-square areas throughout your fields. When a majority of the wild oat plants are in the 2-leaf stage, apply Carbyne!

"For victory over wild oats, spray them with CARBYNE when they are in the 2-leaf stage."



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It's Not Junk If You Know How



Peter Gleboff seated at the wheel of his tractor-jeep, which incorporates pieces from almost every well-known producer of North American vehicles.

WITH a private natural gas well and a talent close to genius for inventing and building labor-saving equipment, Peter Gleboff is an old hand at cutting costs and making the most of what he has on his farm at Kamsack, Sask. Apart from his mechanical gift, Peter has about 700 acres in grain and keeps about 25 head of purebred and commercial cattle.

One of the most versatile machines that a farmer could wish for is Peter's homemade tractor-jeep. It can pull a great pile of rocks on a special Gleboff trailer, for example, or raise a tractor that fell through the ice.

The ingredients that went into the tractor resemble an encyclopedia of the motor industry. There's a Ford truck chassis, a Chrysler 6-cylinder engine, a Chevrolet radiator, a reinforced 1937 Ford front-end, a Hudson hood and an Eaton 2-speed rear-end. The wooden wheels and rims come from a big oil-tanker. The outfit used to have 24 forward gears and 3 reverse, but to avoid confusion, Peter reduced these to 8 forward and 2 reverse. He reckons it can pull a set of harrows faster than a conventional tractor, too.

A heavy built-in winch at the rear pulls up to 20 tons and can snap a stout cable if the tractor's anchored. Its gear box was built miraculously without any machining and it works off a heavy worm gear. The front-

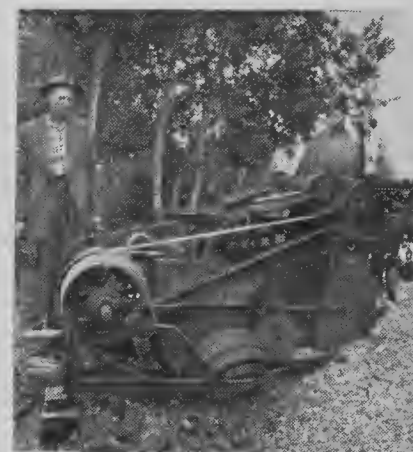
end winch, located just behind the driver's seat, can raise 3,000 lb. without straining, and it is operated by two handy levers for raising and lowering. This winch is made from a Model-T transmission. Peter built a dirt bucket, manure bucket, hay forks, big rock fork and heavy stone rooter to go with his tractor.

The whole affair, looking like a cross between an old-time car and a builder's scaffold, was made from junk in 4 weeks, in his spare time of course. A few refinements were added later.

The trailer which goes behind the tractor is built on two Fordson tractor front-ends, which are twice as heavy as the average wagon's running gear.

A homemade planing mill has helped to make a living for Peter Gleboff since the early 30's. It is powered by a Fairbanks-Morse single-cylinder engine, operating at 5,000 r.p.m. It can produce shiplap, any tongue-and-groove work, flooring, etc., in widths of 3 to 6 inches. The edge cutters are held in position by pieces from locomotive connecting rods. Peter cut parts and chiseled out holes by hand during the depression, when he says he had "plenty of time and no money."

Peter had never seen a planing mill operating before he built his own, but he was able to work out



Planing mill was built in Depression and has helped through bad times.

the details from illustrations in a catalog. It has done a good job all along and can handle 10,000 ft. of lumber a day "if I don't get tired pushing the lumber into it," he says.

Peter has also made a cable weeder, 22 in. hydraulic breaker, an 8-ft. snowplow for his own use and a 10-ft. model for the municipality. His workshop and yard are full of his ideas for converting scrap into useful machines.

The latest gadget is a post-hole auger made in 2 days at a saving of \$75 over a new one. It operates from a homemade power-take-off (saving another \$100) mounted on a light tractor he had bought for haying. This added post-hole chore has cut into the long periods of idleness the tractor enjoyed before.

And how did Peter Gleboff come by his private gas supply? Several years ago, there were drilling companies working in the district and he helped them to "fix things"—they called him their "consulting engineer." In return, they loaned him a rig and a man, and he had soon struck gas. It does all the heating

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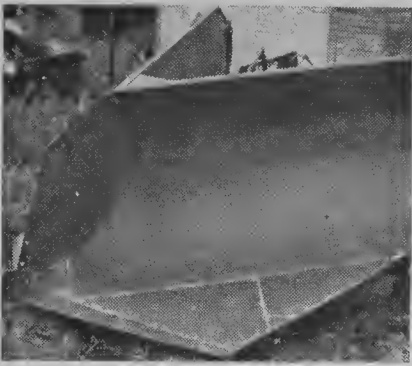
NEAREST TOWN.....

LOT.....CONCESSION OR RANGE.....

WHAT KIND OF WATER SUPPLY SYSTEM DO YOU HAVE NOW?.....



Homemade post-hole auger works off homemade p.t.o., saved Peter \$175.



[Guide photos

A snowplow is a fine example of how to cut metal with a minimum waste.

and cooking in his home, and provides heat for smithing. It used to generate his electricity until the power lines came to Kamsack. The gas was a lucky strike, but it couldn't have happened to a better man.

All this inventive capacity and the ability to figure out complicated engineering problems are all the more remarkable because of an omission in his life. Peter Gleboff never had an opportunity to go to school.—R.C. V

Finding When The Valves Open

WHEN working on an engine, how do you locate the exact point at which the valves open? Here's what Champion Spark Plug engineers suggest:

- Adjust tappet clearance to .005" more than the specified timing clearance.
- Turn the crankshaft in the direction of rotation until a .005" feeler

is just gripped between the valve stem and lifter (or rocker arm).

As an example, if the intake valve is supposed to open at T.D.C. with .0015" clearance, adjust the clearance to .020". Then insert a .005" feeler and turn the crankshaft until the feeler is just gripped. This would be the same as the zero clearance position with the tappet set at .015".

For every thousandth of an inch that you vary the tappet gap, you alter the timing of the valve relative to the piston by approximately two degrees. V

Spark Plug Test on Tractors

LAST summer, farm equipment dealers in six districts across Canada invited farmers to bring in their tractors for a free test, regardless of the make. Test equipment included a dynamometer which measures accurately the horsepower under load. A flowmeter was used to check fuel consumption.

The districts included St. Hyacinthe, Que.; Newmarket and Brampton, Ont.; Stonewall, Man.; Kelvington, Sask.; and Okotoks, Alta.

In every case, the tractors were tested first as they were, and then with new spark plugs. It is reported that with the new plugs, and no other adjustment or work on the engines, tractor power increased by an average of 6.2 per cent. Fuel consumption was reduced by an average of 6.9 per cent. In some

cases, power increased as much as 25 per cent and fuel economy reached 14 per cent. V

Petroleum-base Rust Prevention

YOU can protect farm machinery with a soft film coating of petroleum-base rust preventive, which is "cut back" with a petroleum solvent. The material can be sprayed, brushed, or dipped.

Bert Moggach of the Ontario Department of Agriculture says this type of compound is available in gallon containers or 35 lb. pails at a cost just over half that of multiple-purpose greases.

Since modern lubricating oils and greases contain rust inhibitors, application of a light film will give temporary protection. The drawback is the short life of the oil or grease film when exposed to moisture. Greases are hard to apply, too, and cost more than rust inhibitors.

Before applying rust preventive, clean the surface first. Spray if it's a big job, but remember that the material is usually thinned with naphtha, so spray in a well-ventilated place, and away from open flame.

Remove the rust preventive with a petroleum solvent like kerosene. This can be brushed on.

Machinery in covered storage will be protected for 3 to 5 years. When exposed to the weather, protection should last 2 to 3 years, if any bad spots are retouched during the first year. V

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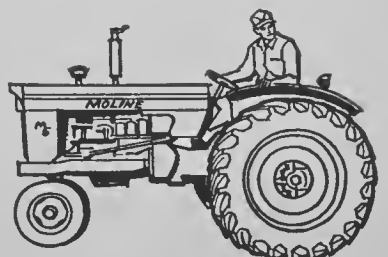
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Bigger Stalls Better for Herd

IF you're planning to renovate a stable, you should know that research and farm experience show there will be less leg and udder injury, and better overall health in the herd, if you build long, wide, cow stalls.

Bpb Milne of the Ontario Department of Agriculture says extra length for stalls is not a big problem unless you have a very narrow barn. It's usually best to reduce the width of alleys to a minimum in order to provide extra comfort for animals. Extra width is no problem, except that it means one or two fewer stalls in the length of the stable. Cows are likely to make up the loss in number of stalls by producing more milk in more comfortable stalls.

A cow stall should be long enough to place the cow's udder well up on the platform when she lies down—not "draped over the edge of the gutter," according to Milne. Dirty stalls won't be a problem in long stalls if you use a cow trainer, which forces cows to step back when they use the gutter. Long stalls also reduce the tendency of cows always to stand in the gutter.

Milne suggests keeping the width of stalls roughly in proportion to length. But for Holsteins, stalls should be 4 ft. wide, or more. If you use cow trainers, keep these stall sizes in mind:

- 800 lb. cow (65" girth): 3'6" wide; 4'8" long for stanchions; 5'2" long for tie stalls.
- 1,000 lb. cow (70½" girth): 3'9", 5'0", 5'6".
- 1,200 lb. cow (75" girth): 4'0", 5'4", 6'0".
- 1,400 lb. cow (79½" girth): 4'4", 5'8", 6'2".
- 1,600 lb. cow (84" girth): 4'6" to 4'8", 6'0", 6'6".

If you don't use cow trainers, Milne suggests you keep the stalls 4" shorter than these sizes. V

Materials for Fighting Fire

HERE'S a rundown on farm methods of extinguishing fires, prepared by the Manitoba Department of Agriculture:

Water is the most valuable, least expensive, and most readily available extinguishant. It can be used for paper, wood and rubbish fires, and should be supplemented by one of the other types of extinguishant for complete protection. It must be protected from frost for year-round use. For example, antifreeze with an ethylene glycol base loses its effectiveness in a radiator after two years, and this might be used through the winter months. A calcium chloride solution can also be used, but this increases the corrosiveness of water. The container should be emptied, flushed clean and refilled with fresh water in the spring. Copper containers reduce the likelihood of damage by corrosion.

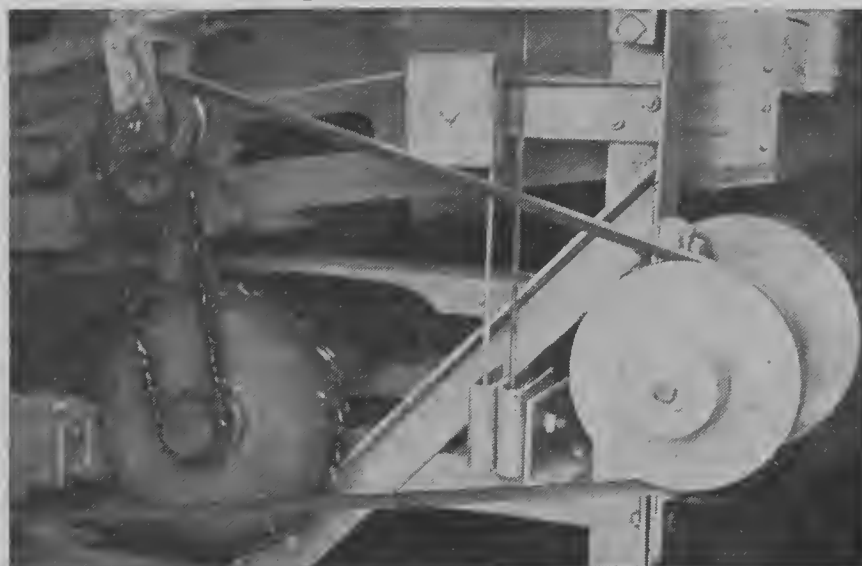
Vaporizing liquid is most commonly used for controlling fires of gasoline, oil, flammable liquid, electric equipment, motors, fuses, etc. The gas produced as it breaks down in the presence of heat is very toxic, so the user should not remain where the extinguishant has been used, unless the area is well ventilated. The pump should be worked occasionally to be certain that it operates freely.

Others (carbon dioxide, dry chemical) should be considered for extinguishers where the toxic effect of vaporizing liquid is likely to be a problem.

The vaporizing liquid type is the least expensive material, considering initial cost and cost of recharging. The carbon dioxide is less expensive than the dry chemical type but is more expensive to refill.

Fuller details can be found in the Manitoba Department of Agriculture pamphlet 282: "Farm Fire Fighting." V

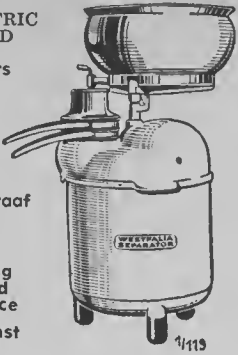
Put on Safety Covers



ACCIDENTS caused by workers coming in contact with exposed belts, pulleys and chain drives make the news columns every day. At this farm seed cleaning plant, the operator must pass by this driving assembly in a fairly narrow passageway. Never wear loose clothing under such conditions. Better still, cover the works with wood or metal guard.—C.V.F. V

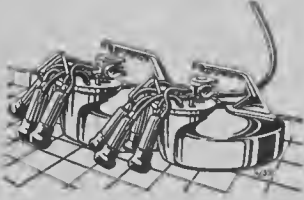
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WHAT'S NEW

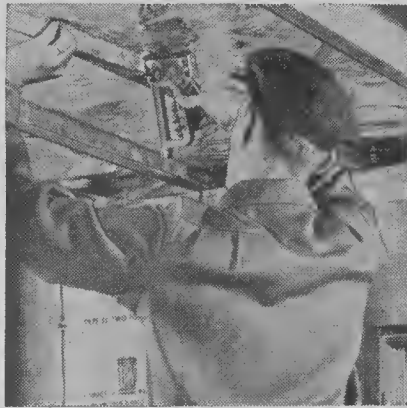
Oxy-acetylene Outfit

This kit includes a lightweight welding torch with 3 heads for welding up to 3/8", and cutting attachment with one nozzle for up to 2 in. Other items are 12 1/2' of 3/16" double hose, friction lighter, goggles, and regulators. (Union Carbide Canada Ltd.) (327) ✓



Reflective Insulation

A multiple-layer aluminum foil blanket, designed for easy installation in hog and chicken houses, and other farm buildings, acts as insulation by resisting loss of heat through radiation, conduction and convection. There is a built-in vapor barrier. Required lengths are cut or torn from a roll and hand-stapled to wooden joists. The blanket expands automatically to form reflective air spaces. (Borg-Warner Corporation) (328) ✓



Single Arm Loader

Shown recently at the Canadian Farm Equipment Show in Toronto, this farm loader has a single arm mechanism and is side-mounted on the tractor. The off-center mounting gives an unobstructed view ahead from the driver's seat. (Ford Tractor and Equipment) (329) ✓



Compact Pickup



Slightly smaller than standard half-ton trucks, and said to be the lowest priced pickup of conventional design in Canada, this model is powered by a four-cylinder truck engine. The short wheelbase of 107" provides good maneuverability. (International Harvester Company) (330) ✓

For further information about any item mentioned in "What's New," write to WHAT'S NEW Department, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man., giving the key number shown at the end of each item, as—(17).

I WAS JUST FIGURING...

by
Cy Watkins



I HATE FLIES

I hate 'em because they're filthy. I hate 'em because they're pesky. I hate 'em because they won't let me work in peace and because they won't let cows graze in peace. If I could do it, I'd like to kill every dad-dratted, dirty, darned fly in creation.

Unfortunately, I can't. The way things look today, if anything could survive a nuclear war, it would be flies . . . and they'd bounce back stronger, meaner and dirtier than ever.

But, there is such a thing as fly control . . . that keeps 'em from being such a problem. You might say that today, on any particular farm, flies are optional . . . you can control 'em if you want to with a good management program and Watkins insecticides.

Your Watkins Dealer can provide you with a complete line of insecticides for use in the home, in the barn, in the pasture and on your garden. You name it, chances are he's got it.

Dairy Fly Control Program

For example, take the fly control program for dairying. It's complete, it works . . . and it pays.

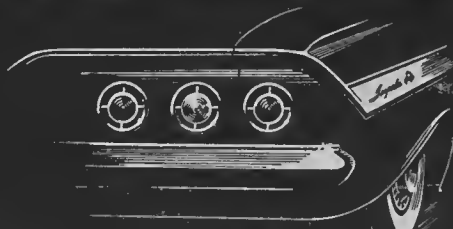
1. **Reduce Fly Population.** First. Remove breeding places. Get that manure and wet straw spread every week if you can before maggots hatch. Second. Use residual insecticides that keep on killing week after week. Watkins has several, including a great new residual that gets "resistant" strains, called Watkins Triple-Duty Concentrate (containing "Ronnel"). It can be sprayed on walls and on animals for two to four-week activity. Another handy residual . . . Watkins Fly Bait (containing Malathion and DDVP) to sprinkle around where flies breed or congregate.

2. **Fog Buildings Daily** with Watkins Grade AA Fly Spray to bring down the ones that got away from the residuals . . . or those that "fly in from out of town" . . . from nearby uncontrolled breeding areas. Watkins Grade AA Fly Spray is a new 1961 formulation of synergized pyrethrins, safe to use anywhere including the milk room and your own home, but with an amazingly fast knock-down and kill. Teamed with the Jet Challenger Sprayer, Watkins Fly Spray will "clean out" a barn in a couple of minutes and let you work in peace.

This is a program that will really do the job. Ask your Watkins Dealer next time he calls . . . he can set you up.

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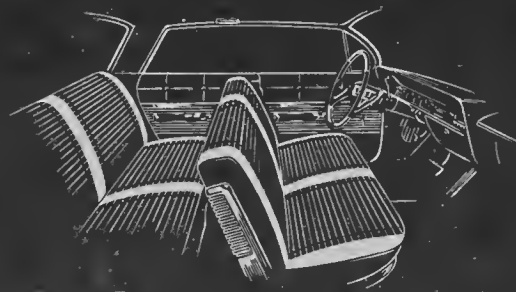
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neatly complete. Chevy's trim look is evident in every masterful touch.



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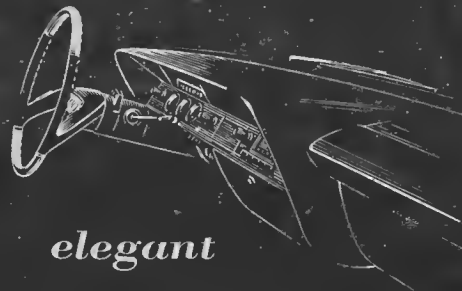
glamorous

and here you're immediately aware of the rich enduring quality of deep-pile carpeting, magnificent upholstery and exclusive headlinings.



becoming

Chevrolet's clean-lined front effect is just a hint of the style that's stealing fashion-hearts across the country.



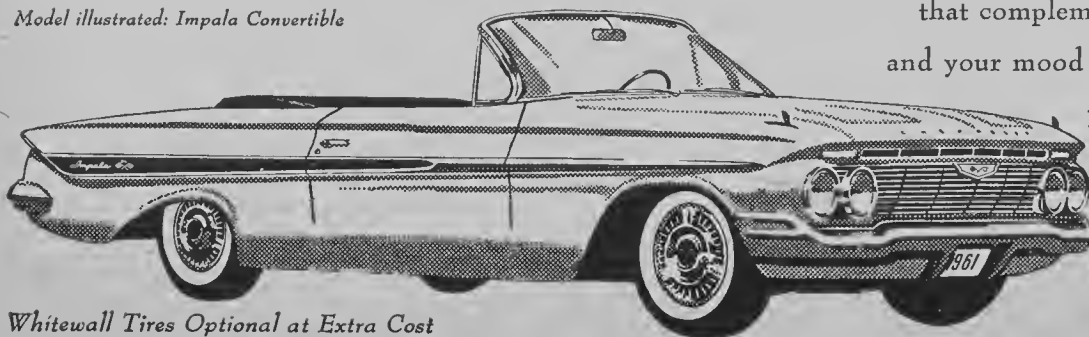
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that complements the fashion mode—and your mood too! Try Chevrolet...
you'll agree it's *magnifique*.

Model illustrated: Impala Convertible



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THE CALL OF THE SOIL

by ALBERT HALPER

Illustrated by PIERRE



Uncle Harry looked at me. "Have you pride?" he asked.

EVERY time spring rolled around, my Uncle Harry poked his nose out the front door of his delicatessen, sniffed the air and shouted to his wife behind the counter:

"Soon it will be summer. If only I could spend the rest of my years in the country and live the life of a farmer!"

This spring it was no different. Buses and trucks roaring down the avenue made so much noise that my skinny aunt could not hear her husband's words.

"Speak louder. What did you say?"

With his nose still out the front door, Uncle Harry replied with a bellow, "Summer is coming and, in the city, it's a dog's life! I want to die a farmer!"

"Why die?" his wife shrieked. "You're only fifty-two! If God is willing you'll live another thirty years yet!"

"You don't understand, Irma! I don't want to die, I want to be a farmer!" Uncle Harry closed the door and came inside near the corned beef and pastrami, a wistful look flooding his eyes. Outside, the traffic pounded by. "You don't understand," he repeated. "I have the soul of a farmer, and the country keeps calling me. It's true I've lived in the city for the past thirty years, but back in the old country, when I was a youth, I had the smell of the good soil in my nostrils all the time." He sniffed the hot corned beef and steaming sides of pastrami distastefully. "I've got farmer blood in me, not city blood!"

His wife, who had listened to similar speeches every spring, argued: "But times have changed; you now own a delicatessen." She meant, in other words: Don't be a dreamer!

My Uncle Harry, a big, tired man, shuffled behind the counter as the door opened and a customer came in. "Good morning, Mrs. Mosskin. How are you on this terribly fine day?"

"Wonderful," Mrs. Mosskin answered warmly. "Give me twenty cents' corned beef, from the middle cut. An hour ago I planted celery, string beans and radish seed in my back yard."

Uncle Harry gripped a sharp knife and began slicing, his lips curling down at the corners. "In the back yard? On the breast of Mother Nature a back yard is just a pimple. A farmer would spit on such a half inch of ground."

"Don't pay attention to my husband," his wife shouted. "He talks like that every spring. It's nothing."

Uncle Harry scowled darkly, wrapping up the dripping slices of corned beef. He rang up the sale, giving change. "Thank you," he said glumly. When the customer had departed he turned to me. I had been standing near the counter all the time, eating the hot dog sandwich he had given me five minutes ago.

"When you finish school and grow up and get married, pay no attention to your wife," he advised me. "Get away from the city, go and live on a farm."

"Yes, sir," I said, chewing on the hot dog.

"Live the wonderful life of a farmer, close to nature. Drink milk fresh from the cows and breathe the unpolluted air."

"Yes, sir," I repeated.

"Don't stay in the city," he roared. "The city is no place for a civilized man."

"What are you saying to him?" my aunt cried. "He's only a boy. What ideas are you putting into his head?"

"Not ideas, but sense. If I was a man, I'd sell this store tomorrow and buy a farm."

My aunt looked frightened. Every year Uncle Harry made speeches against the city, but this spring there was an ominous note in his voice.

"Harry, don't get excited! What is, is! Don't beat your head against the wall!"

My uncle said nothing.

THAT night Aunt Irma came over to our house and, full of agitation, began talking excitedly to my mother and father:

"He has the fever again this year, only it's worse than ever. It's terrible to listen to him. This time

he wants to give up the store and buy a farm. A farm! He's crazy." She turned to my father. "He is your brother-in-law, talk to him. When I married him twenty-five years ago, did I expect him to turn out like this?"

My parents listened to my aunt shouting. Uncle Harry was my mother's brother but my aunt kept talking to my father. The inference

was that in a case like this only a man could talk to her husband and knock some sense into his head. My father, however, didn't want to get mixed up in it.

"It's a complicated business," he began, trying to edge out of it.

"Why, what's complicated about it?" my aunt cried. "We slaved hard for eight years working up a good delicatessen trade, and now he wants

to be a farmer. It's not complicated, it's simple. All you have to do is talk to him. He'll listen to you. He respects you."

"I don't know," my father said. "I don't know." He was still trying to get out of it when the doorbell rang. "Dave, go and see who it is."

I ran to the front door and let in Uncle Beryl, the joker, and short, fat Uncle Jake, the hatter, with their wives.

"Excuse us for not phoning first," cried Uncle Beryl, "but we wanted to surround you with happiness. Sometimes relatives are like hailstones, they come as a surprise."

"Ha, ha, ha," laughed Uncle Jake. "I wish I could think that fast."

AS they began talking and taking off coats and hats, Aunt Irma turned and shouted to them. "I'm in trouble. My husband has got the fever again. It's spring and he wants to give up the delicatessen and go and live on a farm."

"Why, what's wrong with a farm?" asked Uncle Beryl, the joker, settling himself in a chair without bothering to see if his wife was seated or not. "Farms are very important in our economic system. They perform a wonderful function of nature."

"Listen to him," Aunt Irma shrieked. "He wants my husband to ruin himself and leave his wife."

"A nation without farms is a desert," stated Uncle Beryl. "It means imports instead of exports, and that's a very complicated thing."

"Bring in a couple of chairs," my father told me. "And while you're in the kitchen, put the kettle on to boil—the big one."

"Listen to him," shrieked my aunt. "We slaved for eight years and he talks about imports and exports."

"He's merely referring to economics," put in Uncle Jake thoughtfully, as he sat on the chair I brought him. "I don't know the figures, but this is a great agricultural country. I'll ask my boy Irwin when I get home. He'll know."

Hearing all this scientific conversation, my mother looked worried. From the first she had been on Aunt Irma's side.

"I'm a woman so I can't understand all this," she said politely. "but it's no joke."

"Who's joking?" asked Uncle Beryl, his eyebrows shooting up to meet his hairline. "Agriculture feeds the nation. There's beans, beets, corn, potatoes, squash and heaven knows what else. Believe me, getting all those vegetables out of the ground is no joke."

"Not to speak of spinach and melons," reminded Uncle Jake sagely.

"Yes, thank you," said Uncle Beryl. "The list could go on indefinitely."

The conversation went on like this for fifteen minutes. I thought it was wonderful. Aunt Irma was so mixed up she looked like a top being spun around. Finally she began weeping.

"Enough of figures and science! I am an ignorant woman! But I want to hold my family together! I'm going crazy! What shall I do?"

The tone of their conversation was changed at once. As my mother brought in cups of hot tea with side

dishes of sliced lemon and slabs of homemade cake, Uncle Beryl hitched his chair closer to the table.

"The problem before us," he said, "is to keep Harry from wrecking his financial status. As I see it, my brother-in-law Harry is a sick man. Not physically sick. But he has, let us say, a slight mental condition. It's up to us to cure him."

Again he glanced around. Everybody, including myself, was impressed with his scientific approach. "Therefore," he concluded, "we have to show him what a big fool he is. Psychologically, that is. No man wants to be called a fool to his face."

"But how?" cried Aunt Irma in anguish. "If you only knew how I don't sleep nights! How?"

Uncle Beryl thought a while. "Well, humor him a little. For instance, if he starts to shout that he wants to go to the country, pamper him. Say, 'Yes, it must be wonderful in the country now.' Then, in a little while, add, 'Why don't you take a walk in the park and see the trees and the grass?' When he goes to the park that will take most of his steam away."

"And, in the meantime, who's going to stay with me in the store?" Aunt Irma cried. "My feet hurt—it takes two to run our delicatessen!"

For some reason or other everybody at this point looked at me.

"Why can't Dave help out his aunt after school?" asked Uncle Jake, the hatter. "He's a smart boy."

My parents glanced at me. In their eyes was a look which telegraphed, "Anything to keep Uncle Harry from ruining his life!"

"I don't know how to cut corned beef or pastrami," I said.

Aunt Irma was already grasping at anything. "I'll cut the meat, you sell the pickles, bread and mustard." She added quickly: "And I'll give you fifteen cents an afternoon for helping me in the store."

WELL, that's how I got to be a part-time delicatessen clerk, working after school. The very next day I put on one of Uncle Harry's long white aprons, which dragged around my ankles as I moved behind the counter.

"Dave wants to earn some spending money to buy a baseball," my aunt explained to her husband. "So I told him he could work here a few hours after school."

"How much does a baseball cost?" my uncle asked me.

"About seventy-five cents," I said. "But a big-league baseball costs a dollar and a half."

"Here," said my uncle, going to the cash register, "here's a dollar and a half. I don't want any boy to be slaving in a delicatessen store."

Before he had a chance to open the cash drawer my aunt cried out, "Is that the way to act? He doesn't want charity. He has his pride."

My uncle looked at me. "Have you pride?"

I hung my head. "Yes, sir."

"All right," he said. "I'm disappointed in you. You can work in this terrible delicatessen store."

Then a woman came into the store to buy two pickles and three onion

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rolls. I ran to wait on her and almost tripped over the bottom of my apron. When she was gone my uncle said:

"Don't run; walk. You'll live longer. Besides, are you going to a fire? No, you're just selling pickles and bread to a customer!"

I didn't rush so much when the next customer came into the store for a pound of potato salad. Still, I was pretty fast. After an hour or so my uncle, looking at me, then at the slabs of meat steaming on the counter, shouted:

"It's a dog's life, I say! When I smell those hunks of cooking meat I want to break down the shelves!"

"Harry, Harry," cried his wife. "Calm yourself, don't get excited! We're lucky people, we own a store, we're making a living!"

Uncle Harry snorted. "A living? A horse makes a living too, dragging a wagon. No, I was meant for a farm!"

My aunt did not argue with him. Uncle Harry looked at her and shouted, "I repeat, there's only one civilized way of living—"

A customer opened the door and came in for a pound of herring. When the customer left, my aunt turned to her husband. Her voice was actually soft:

"Harry, you may be right. There's something in what you say. I've been thinking it's not good for you to be cooped up in the delicatessen all the time."

My uncle was flabbergasted. He didn't know what to make of it. His wife was not arguing with him. His jaw hung down.

"Harry," my aunt continued, "why don't you take a little walk?"

"Where?"

"In the park."

"In the park!" my uncle roared. "Is that a place to walk, where the grass is trimmed daily and every flower has to be tickled by a gardener before it'll grow?"

MY aunt was patient; she dropped the subject diplomatically. But a few afternoons later, when the warm spring sunshine was coming through the delicatessen windows, she began again: "Harry, why don't you go out for a walk for a half hour? It's so nice this afternoon."

My uncle threw his wife a scathing look. "In the park?"

"Yes," she replied, "it's nice there. Look, if you move some cans of tomatoes and stand near this end of the window you can see the trees five streets away."

My uncle wrapped himself up in his dignity and said nothing. His wife coaxed him a bit more, and finally I went over to the point where she had asked her husband to stand. Aunt Irma was right. By taking a position near the extreme end of one of the windows and peering past a big crock of pickles you could look east and see the green tips of the trees in the park five blocks away.

"Can you see the trees?" my uncle asked me.

"Yes, sir," I said.

He said nothing. A half hour later, stating that he was going to the corner to buy a newspaper, he put on his hat and coat and went out. My aunt was smiling to herself. It

was a small and secretive smile of victory.

My aunt's triumph was of short duration. It lasted an hour, in fact. When Uncle Harry returned, he was smiling; he looked like a man who has seen the promised land.

"Irma, I took your advice; I walked in the park. The park is a fake, of course; it's a product of our artificial city culture. But it did something wonderful to me."

"What?" My aunt was hanging breathlessly on his words.

"It made up my mind! As soon as the weather gets a little warmer, I'm going out to the country and buy a farm!" . . .

THAT night all my relatives met at our house and held a council of war. Uncle Beryl talked about his brother-in-law's "mental condition" and "neurosis," but his scientific phraseology did not impress the others with the weight of its former authoritative impact.

It was fat Uncle Jake, the hatter, who finally hit on a plan.

"I've got it," he cried. "In a few weeks, when the warm weather starts, we'll send our nature-mad brother-in-law out to the country, but only for a vacation. That'll settle everything. We'll send him away for two weeks and when he returns he'll have it out of his system."

"Where will we send him?" my mother asked.

Everybody began speaking at once. It was simple. Why hadn't they thought of it before?

But the next few days proved that the solution wasn't so simple. First of all, Uncle Harry didn't want to go "where everybody went."

"Those places are summer resorts, not farms! People go there to eat all day and play cards at night! It's the city moved to the country, with all the city vices! They even serve pickles and potato salad for supper! No, I want to live on a real farm!"

Aunt Irma again was near a nervous breakdown. June was drawing near now and Uncle Harry wouldn't be budged. Next week, he said, he'd insert an advertisement in the paper to sell the delicatessen and then he'd hunt for a farm.

SUDDENLY and dramatically a piece of good fortune came my aunt's way. There was a customer named Mr. Kelly who, twice a week, came to the store to buy my uncle's good corned beef. Mr. Kelly had been buying meat in the store for over three years. One afternoon Mr. Kelly came in and bought four pounds of corned beef, saying he was taking it out to eat over the week end at his brother's farm.

"A real farm?" my aunt asked excitedly.

"Why, yes."

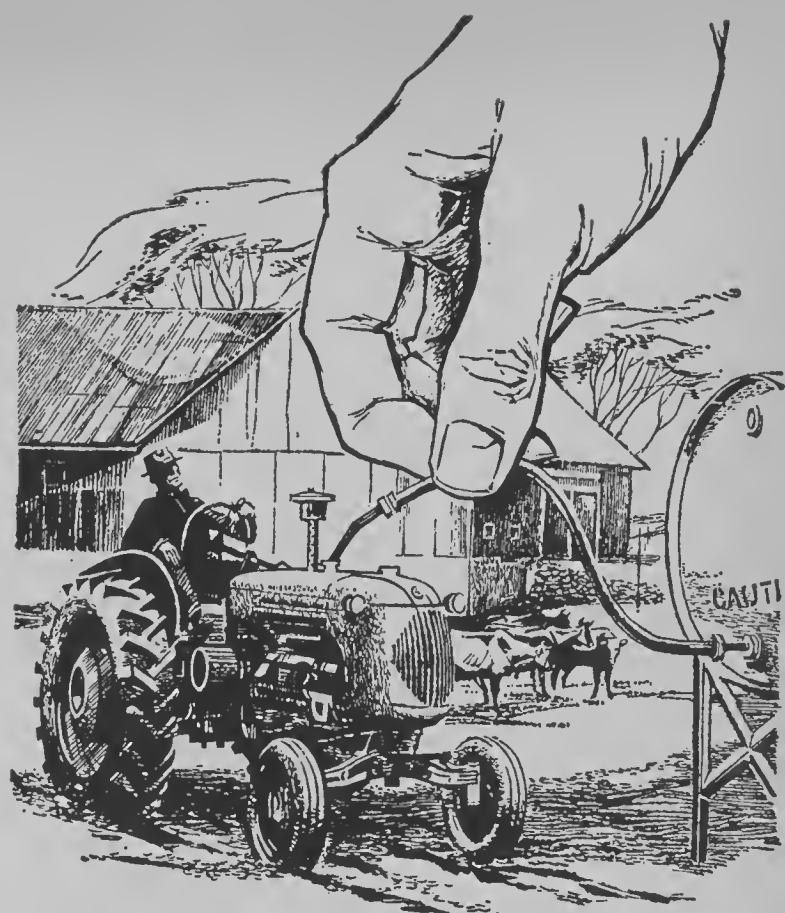
"Your brother has chickens, cows and goats there?"

"He has chickens and cows but I don't think he has any goats."

Uncle Harry was in the back room sipping tea so my aunt could speak freely.

"Do you think, Mr. Kelly, your brother would take a boarder for two weeks? A paying boarder?"

"I don't know. He needs the



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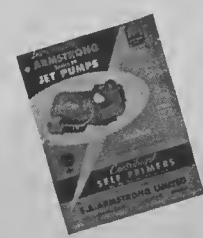


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How Lye helps these top Broiler Men prevent mortality

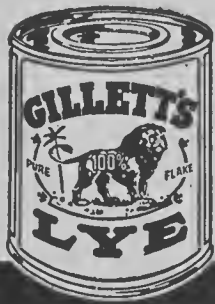
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money. I guess he would. I'll ask him over the week end."

My aunt was so nervous and happy she gave Mr. Kelly an extra half pound of corned beef free of charge.

NEXT week end Uncle Harry was packing his grip. It had all been arranged. Uncle Harry was a fair man; he had agreed not to put the advertisement in the paper until he returned. "I'll be back in two weeks," he said happily, placing shirts, drawers and work pants in his battered cardboard suitcase. "I hope you manage with the store."

"Dave will help me. I'll manage. If you like it there, stay three weeks, four weeks. You need a good rest."

"I can't wait until I get there." His big nose quivered. "I want to smell the good soil." And ten minutes later, locking his cardboard suitcase and hastily kissing his wife, he was on his way to the railroad station.

My aunt drew a long sigh after her husband had departed. The store had been saved. My school term was over and I'd be able to help her in the store for two weeks, three weeks or even longer. She turned to me happily, saying: "Are you thirsty? Go behind the counter and drink a bottle of pop, any color you like." Smiling, she looked ten years younger.

I worked hard all afternoon and evening, waiting on customers. I performed my duties so faithfully behind the counter that I drew forth the praises of my aunt. The next morning, when I reported for work, she was still all smiles.

"If you're hungry at noon," she told me, "you can have a piece of pie."

I needed no further prodding and, when my aunt wasn't looking, I stuffed myself with pie, hot dogs, corned beef, pickles and soda pop all day long. I was working hard for my wages, wasn't I? And besides, my aunt had given me the green go-ahead traffic light, I told myself. Her good humor still held out the second day and I looked forward to filling myself with delicatessen fare for the next two or three weeks at least.

THE thunderclap came — on the fourth morning just as we opened the store. Uncle Harry returned.

We couldn't believe our eyes.

He came up the street after living on the farm for three days, sun-burned to a crisp, dragging his bulging cardboard suitcase, walking painfully. My aunt gasped while I stood pop-eyed at the window. My aunt was the first to speak. She screamed, "What's the matter? Why? What . . . ?"

My uncle set his suitcase down in angry silence. Once in the store he looked more severely burned than ever. His pale city ears, having absorbed the fierce rays of the country sun, had swelled to twice their size, standing out now like freshly boiled baby lobsters.

"Harry!" my aunt shrieked. "You're back so soon? Why?"

My uncle stared at his wife, and in that look was hatred.

"Harry!" my aunt repeated. "It's only three days!"

My uncle finally spoke. "Even three days was enough!" he roared.

"Why? What's the matter?"

Uncle Harry looked at his wife witheringly. "You wouldn't understand. What are you? Only a woman!" That was all he said. Tramping back to the rear of the store, he began unpacking his grip.

My aunt kept at him for two days for an explanation, but Uncle Harry clamped his mouth shut. Once more he stood behind the counter in his long white apron, slicing corned beef and pastrami, hating his work.

Finally, when my aunt had stopped questioning him, he gave out with a little information of his own free will.

"Three days of it was enough! I offered to help the farmer plow up a field and I almost broke my back! The sun was like fire! The food was terrible, too! And at night I couldn't sleep—"

"You never had any trouble sleeping in the city," his wife interrupted, alarmed. "Wasn't the air out there healthy?"

"It wasn't a question of health! It was a question of survival! Mosquitoes the size of grasshoppers flew toward my bed when I tried to sleep, and all night long ten thousand crickets outside my window made a sound like motorboats!" Just then three big coal trucks rumbled down the street.

"What's that?" Aunt Irma could not hear. "What?"

"At least here it's quiet!" Uncle Harry shouted. "Here I can sleep!"

When her husband's back was turned Aunt Irma shot me a look of triumph.

Next day I was discharged.

ALL fall and winter my aunt worked happily in the store. I dropped over occasionally. Business was good and Aunt Irma actually began putting on weight. When she came over to our house alone she began to joke about what she called "that former foolishness" of her husband's.

But one day when I was in the store as spring rolled around again, Uncle Harry poked his quivering nose out the front door of the delicatessen, sniffed the air and shouted over his shoulder:

"Irma, soon it will be summer! I've got to get the good smell of the soil in my lungs or I'll die!"

My aunt stiffened as though struck from behind.

"Are you crazy? You went out to a real farm last year and you almost did die!"

Uncle Harry snorted. "You call that a farm? No, that was just a piece of wilderness! I've been thinking all winter! Tomorrow I'm going to put an advertisement in the newspapers for a farm located in a province where the sun is warm but not hot, and where there are no mosquitoes or crickets!"

Aunt Irma staggered and clutched the counter. As I ran for the smelling salts, I looked over my shoulder. Uncle Harry's face was lighted up like a new electric sign that was guaranteed to throw light for ninety-nine years.

Home and Family

The Country Guide's magazine for rural women



[Luoma photo]

Farmer's Son

*You see him out there raking hay,
Bareheaded on a sunny day;
Though young in years—so husky—tan—
He works just like a grown-up man;
He knows the tractor inside out,
He grew up with such things about;
And ever since he learned to walk,
He followed dad—learned tractor talk,
The binder—combine—give him joy,
He runs them well, this farmer boy.
His hands are nimble with each tool,
The farm is like a second school,
Where he is learning day by day,
The many things that come his way.
He milks the cows, and stooks the grain,
And dreams his dreams in sun and rain;
His cheery smile makes dark days bright,
He lives what's honest, good and right,
And fills his days with useful toil,
About the farm—with stock and soil;
He loves his dog, and pony too,
The pasture trails—the sky so blue,
In peace he sleeps when day is done,
A farmer's tired little son!*

Poems by ELMA HELGASON.

Farmer's Daughter

*A little lass so full of vim,
And bubbling over to the brim,
She loves to ride and jump and run,
And thinks that little calves are fun,
And pups and kittens, chicks and ducks,
And riding round in cars and trucks.
Her hair, wind blown, not always neat,
Still frames a face so kind and sweet,
She cooks and cleans, minds baby too,
And cheers one up when days are blue.
She pulls the weeds, helps with the hay,
And washes dishes day by day;
She loves to slip away for fun,
To walk in woods and wind and sun,
To gaze in wonder at the flowers,
And find birds' nests in leafy bowers;
To pick wild berries or take a book
Out to a favorite quiet nook,
Where flowers smile and breezes sing,
And birds slip by on silent wing;
She is her parent's pride and joy,
A princess sweet—a bit tom-boy,
Just give her time, she'll grow to be,
A power in her community,
But now—sun-kissed, with auburn curl,
She's just a farmer's little girl!*



[Miller Services photo]



Dame fashion arrived on Saskatchewan's pioneer scene in the rustling taffetas, swishing skirts and soft silks of gowns like these from the permanent collection of Western Development Museum at Saskatoon.

The Gentle Past

by RALPH HEDLIN



A Saskatchewan pioneer models a gown fashionable before the turn of the century. Her granddaughter's dress of embroidered batiste, the china doll and carriage date to 1895.

THE team of oxen hauling a walking plow, the sod shack, the great steam tractors and the early threshing outfits tell the story of the unfolding agricultural Canada. But they do not tell the whole story. The early farm country was more than men and machines, pioneers and production. It included the gentler refinements—the garden party, the wedding reception, the children with their china dolls and their pretty dresses, the clothes of an earlier era.

The Western Development Museum in Saskatoon is building the record of the men and the machines. But the women of the community decided that the Pion-era should tell a more complete story of the history of the prairie west; they first recreated a pioneer home; more recently, they collected the dresses and clothing that graced the settlement era.

Her Majesty Queen Elizabeth and Prince Philip saw some of these fashions when they visited Saskatchewan. The collecting continued and a premiere showing of a fashion parade that could have taken place 50 years ago was held at a tea for the wives of the delegates attending one of the annual meetings of United Grain Growers Limited in Saskatoon.

The passage of time presses deeply upon those who knew the wagons to roll across the prairies and the first settlers' cars to push settlement onto the plains. The Ladies' Auxiliary to the Western Development Museum was determined that our knowledge of life in the early west should not vanish. The result is the permanent collection of the fashions of those days, some of which are displayed here.



Both these models homesteaded in Saskatchewan. They're dressed for a garden party. Note the white dress with its elaborate lace embroidery.



Black was fashionable in early days too, as can be seen from this lace-trimmed black serge dolman and the simple black broadcloth skirt.



This "couple" model formal wedding attire of pioneer days, her dress white net over silk with Battenburg lace, his a swallow tail coat, white vest, silk top hat.

*Regal, colorful, fragrant,
the petaled peony deserves the
royal title bestowed on her*

Queen of the Late Spring

by DORIS MEEK



PEONY time is almost here. Soon, in parks and gardens, we shall be admiring this showy flower, often called the "Queen of the Late Spring." I sometimes wonder why we don't have more varieties of this hardy, easily-grown perennial in our farm gardens. From a wide selection we can choose inexpensive plants having fragrant, single or double blooms in varying shades of pink, white or red which will flower in succession.

Not only do these plants provide bright splashes of color during their flowering periods, but they remain beautiful in every stage of their development.

In my garden, I watch the first coral tips break through the ground in early spring. They soon grow into sharp, red spears. As the leaves slowly unfold, the changing shades of red, green and copper contrast exquisitely with the pale yellow, cream and gold of dancing, nodding daffodils planted near them. After the gay flowers have disappeared, the foliage remains crisp, fresh and green until it takes on its attractive fall coloring of yellow, orange, russet and purple. It can then be used effectively in bouquets with late autumn flowers.

You can enjoy peonies in the house as much as in the garden. They make splendid cut flowers and last for a week to ten days. Cut them in the evening with a sharp

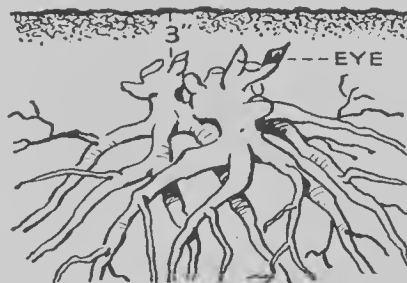
knife just as the buds are showing color. When cutting, it is advisable to leave some stem and several leaves to produce food for next year's flowers. A little charcoal or permanganate of potash added to the water before the bouquets are arranged prolongs the life of the flowers by preventing bacteria growth.

ALMOST anyone can grow good peonies by taking a little care at planting-time in the fall. The plants thrive equally well in a bed by themselves, along the edges of a path, or in a perennial bed if they are spaced three feet apart in all directions. To get the best results they should be placed in a sunny, open position where they are protected from wind. They prefer rich, heavy loam. As they shouldn't be disturbed for many years, the ground should be well prepared. Dig holes two and one-half feet deep several weeks before planting-time. Fill them with a mixture of good top soil, well-rotted manure, peat moss or compost and a 4-inch potful of bonemeal.

After the mixture has settled, make a hole in it large enough to receive the brittle, fleshy roots without crowding them. Place the "eyes" (snout-like growths at the top of the roots) two or three inches below the surface of the ground leveled off. Often peonies fail to

bloom because they have been planted too deeply.

When an old plant is moved, stems and leaves should be cut off just below ground level with a sharp knife. The roots should then be divided so there are five to eight strong eyes and a generous proportion of roots on each division.



They should be planted where peonies haven't been grown before and covered with evergreen boughs or leaves for the first winter.

Having given the plants this good start, they need little more care, if they are kept free from weeds and given a dressing of wood ashes (6 ounces) and bonemeal (4 ounces) scratched into the ground each fall before a rain.

Botrytis blight, which sometimes attacks peonies, can often be prevented by removing old blossoms before they fall. Dead foliage should be cut off just below the ground with a sharp knife in the late fall and then burned. If the disease occurs, spray the plants with Bordeaux mixture.

PEONIES have an interesting history. The old-fashioned red "piney" of our grandmothers' gardens has been known in America since 1800 and originally came from Europe. It is still grown in spite of its unpleasant odor because it flowers early and can be planted in shrubbery or the wild garden. It even thrives in grass. This is the peony of mythology and Greek and Latin literature.

Peonies have been grown in China for more than 2,000 years

and the best double flowers originated in that country. At first the Chinese used the plant for medicinal purposes and served the roots as food for human beings. Even now they are served as food in certain parts of Mongolia. By 1066, Chinese gardeners were interested in improving the flowers and in 1596 more than thirty varieties were listed in the growers' catalogs. The single peonies—like water lilies filled with a mass of golden stamens—came originally from Japan. In both China and Japan the peony served as an emblem of friendship in olden days.

Even though you are a farmer's busy wife with little time for gardening, perhaps you will decide to buy a few new peonies this fall. Planted with care, they will brighten your garden for years.

If you are unable to visit a peony garden in late spring and make your selection while the flowers are blooming, why not choose your plants from a good garden catalog? You will find that the American Peony Association rates all peonies on a scale of ten. Varieties rated at 9 or over are of very high quality—it isn't wise to buy those that rate less than 7.5. V

Mistress April

*Oh, young Mistress April is shopping
today*

*For lovely new dresses and bonnets so
gay!*

*Her purse is a cloud filled with silvery
showers—*

*She'll purchase an umbrella made of
Spring flowers,*

*A mantle of green trimmed with spider
web lace,*

A butterfly veil to encircle her face.

*To find fragrant perfume, she'll follow
her nose,*

*Then pick up some daisies for buttons
and bows.*

*Her small lady slippers she'll buy for a
song*

*From Elf men who fashioned them all
Winter long.*

*Yes, young Mistress April is shopping
today.*

*Just watch — you will see her — she's
coming your way!*

—FRANCES GORMAN RISSE



Peonies make a fine display along the edge of a garden path. For best results pick them in the evening and harden them overnight in a pail of water.



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HANDICRAFTS

Spring Fancies

Three tiny buttons trim the back of these crisp crocheted gloves and assure a neat fit at your wrist. Leaflet No. C-P.C. 8480, 10c, gives crochet instructions in glove sizes Small, Medium, and Large.



Diagramed directions for the smocked design which trims this young lady's dress are given in Leaflet No. E-6573. One diagram illustrates the positioning of the various stitches; separate drawings show the individual stitches in detail. The dress pattern is not included. The leaflet price alone is 10c. Hot iron transfers of 30 rows of smocking dots are available for 19c extra. When ordering the smocking dot transfers, please specify blue dots for use on pale fabrics or yellow dots for dark fabrics.

Leaflet No. C-P.C. 9071 features crochet instructions for a floral motif to decorate a headband and drawstring handbag. The crocheted gloves are a 5-year size. Price 10c.



Leaflet No. C-78, 10c, offers pattern directions for baby shoes, 2 baby sacques, a bonnet, and an infant's dress. Diagramed instructions are given for the hairpin lace worked into the matching set of sacque and bonnet. The dress, in sizes 2 and 3, is knitted. All of the other items are crocheted.

For handicraft patterns pictured above please address your order to The Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

The Sandpile Set

No. 7666. This saucy coverall and pantie set for toddlers is made from a quick 'n easy pattern. Sizes ½, 1, 2, 3; 35c.



No. 9647. Snap-opening leg seams and button-on pant styling are two popular features of these toddler outfits. Sizes ½, 1, 2, 3; price 40¢.



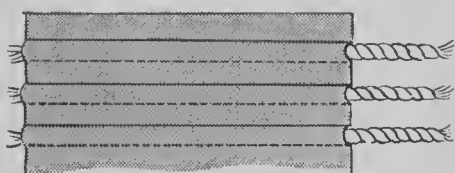
No. 9451. This toddlers' dress and diaper set pattern features a collared flaring top with short cuffed set-in sleeves, plastic-lined buttoned panties and bib. Sizes ½, 1, 2, 3; price 40c.



No. 8891. For sun and sand and Sunday best, lads can be suited from this pattern. Shirt has no side seams, suspender-pants have elastic at back. Sizes ½, 1, 2, 3. Pattern price 35c.

Clip and Save Sewing Hints

Corded Tucks

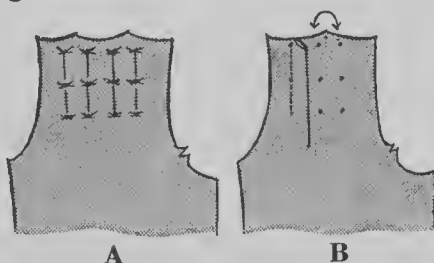


Mark for tucks. Place fabric over cord right side out and baste tucks enclosing cording. Stitch on the right side close to cord. Use cording foot of machine or make tucks by hand with fine running stitches.

Making and Pressing Cluster Tucks

A. Tucks are often arranged in groups or clusters. Printed lines on patterns indicate where fabric is to be folded. Transfer markings to fabric by tailor-tacking or using tracing paper and a tracing wheel.

B. Bring markings together to form tucks. Then stitch and press. ✓



The Country Guide Pattern Department

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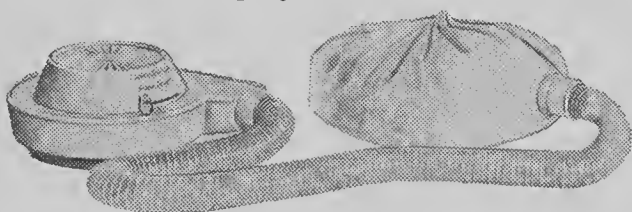
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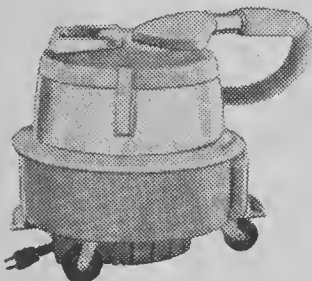


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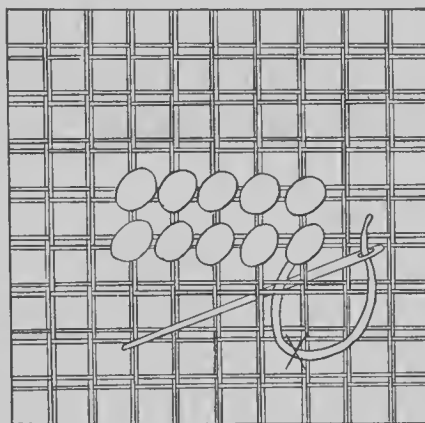
by BEATRICE J. LATIMER

HAVE you admired the beautiful needlepoint pieces that others have done? Have you thought of learning the craft? It's really quite simple if you begin with backgrounds. You can buy a canvas with a design already worked, choose a background color to set off the design and then with a simple stitch, complete the piece of work.

Needlepoint is a handsome handicraft from yesterday. In Queen Anne's time it became popular for fire screens, sofas and chairs, perhaps because the Queen herself did a lot of needlework. Today, there are canvases appropriate to every home and designs suitable for any room. Needlepoint is a favorite for chair, bench and stool covers, and it can be effectively used for hangings, pictures, pillows, table covers, book ends, and numerous other things.

From working a background you can progress to working an entire canvas with a simple design. As you become proficient, you can do more intricate and detailed subjects. Experienced needleworkers often develop their own designs, choosing colors with meticulous care.

The newcomer to needlepoint will find the Continental Stitch (shown in the illustration) fairly simple. And it makes a firm, thick background. It is worked right to left (the diagonal stitches point the same way as the stitches in the design). You need a blunt tapestry needle and tapestry wool lengths of 14 to 18 inches. Longer threads wear thin from pulling through the canvas, so that some stitches do not cover as thickly as they should.



One must guard against the wool becoming twisted, for this, too, can make thin patches in the background. A twisted thread will straighten if the thread, with the needle on it, is dangled for a moment. And the learner must not draw the wool too tightly because this pulls the canvas out of shape or covers it unevenly. Hold the wool with the thumb (at point marked X on illustration) until the stitch is made and the wool pulled carefully through the canvas.

When you begin, remember to leave an end of the first length of wool at the back of the canvas. The first stitches should overlap this short length to hold it firmly. As you work the remaining lengths of wool, simply draw through the stitches on the back and trim off ends.

Always work across a row rather than stitching small patches of several rows. When a row is finished, turn the canvas around (upside down) and stitch back across the next row. In this way you always work right to left. Stitch through the large opening in the canvas and try not to catch a stitch already worked.

Before you start, decide what size you wish the finished needlepoint to be. In the case of pictures, you will be governed by the frames you've chosen and will work the background slightly larger than the frames' inside dimensions.

GOOD-LOOKING frames set off your canvases. Before framing, pull the completed work into shape, press the back of the canvas using a damp cloth, then dry flat. You may need to tack or pin your needlepoint to something flat to have it dry to size and shape. Or you may prefer to merely dampen your needlepoint, pin it into place without ironing, and then allow it to dry.

In needlepoint, rich, delicate and subtle colors that blend and harmonize are more desirable than flashy showy ones. It is wise to choose designs with care, to make the work and time entailed in finishing a canvas worthwhile. Since needlepoint retains its beauty for years and years, a wise choice of subject and your best efforts at needlework will give you endless satisfaction and enjoyment.

Begin by working the backgrounds to simple, attractive needlepoint designs. You'll bring a new art into your home and find a fascinating, productive hobby.

Country Town

*I love small country towns—the
 shady streets
 Rambling to quiet lanes . . . Each
 casual lawn
 Where children play, dogs romp—
 and neighbor greets
 A friend across the way . . . I walk
 upon
 The busy Main—a common
 thoroughfare—
 Post office corner where old cronies
 spin
 Strange tales of yesteryear—their
 troubles share
 And comfort give . . . When dusk
 has settled in
 And street lamps shed a warm and
 mellow glow—
 Here is the heart at home—this much
 I know!*

—OLIVE GERTRUDE SMITH

Ways with Bread

IF bread is bread to you just look below at all the ways in which you can use a loaf to enhance your meals! Herbed, spiced and flavored butters and cheese spreads transform the breakfast loaf into a gourmet accompaniment for soups, salads, and casserole meals. A fruit bread loaf can come to your rescue when unexpected company catches you with an empty cookie jar.

Soup Sticks

- | | |
|------------------------------|--|
| 1 c. crisp rice cereal | 2 T. caraway seed, celery seed, or dill seed |
| 1 pkg. refrigerated biscuits | 2 T. milk |

Crush cereal slightly, then mix with seed and salt. Cut biscuits in half. Roll each portion into a pencil-thin stick about 4 in. long. Brush with milk; roll in cereal mixture. Bake on a greased baking sheet in a very hot oven at 450°F. about 10 min. or until lightly browned. Serve piping hot.

Parsley Lemon Loaf

- | | |
|-----------------------|----------------------|
| 1 loaf unsliced bread | ½ c. chopped parsley |
| ½ c. soft butter | 2 T. lemon juice |

Cut loaf in half, lengthwise. Cut each half loaf into 12 slices, cutting almost through to bottom crust. Combine parsley, butter and lemon juice and spread between slices. Heat bread on a baking sheet in a hot oven at 400°F. for 12 min. or until hot and crusty.

Cheese Cubes

- | | | |
|----------------------|------------------------------------|-----------------------------------|
| Unsalted white bread | 2 T. melted butter or brown butter | ½ c. finely grated cheddar cheese |
| 2 eggs, well beaten | | |

Cut twelve 1½ in. cubes from bread. Stir butter into beaten eggs. Dip bread cubes into egg mixture, then roll in grated cheese. Bake on a baking sheet in a moderate oven at 375°F. until lightly browned, about 10 to 12 min. Serve hot with salads. Yields 12 cheese cubes.

Caraway Cheese Loaf

- | | |
|----------------------------|-----------------------------------|
| 1 c. grated cheddar cheese | 3 T. mayonnaise or salad dressing |
| 2 tsp. caraway seed | 1 French stick or Vienna loaf |
| ¼ c. soft butter | |

Combine grated cheese, caraway seed and mayonnaise. Cut bread diagonally, almost through the bottom crust, into 1 in. thick slices. Spread butter between slices. Next, spread cheese mixture on each slice. Wrap loaf in aluminum foil and heat in a hot oven at 400°F. for about 15 min.

or until hot and crusty. Serve hot in foil and let everyone break off a portion. Yields about 12 servings.

Parmesan Rye Toasties

- | | |
|------------------------------|------------------------------------|
| 2 doz. thin slices rye bread | 4 T. finely grated Parmesan cheese |
| 4 T. soft butter | |

Blend cheese with soft butter and spread mixture on each slice of bread. Arrange slices on a baking sheet with spread sides up. Toast in a hot oven at 400°F. about 10 min. or until crisp. Serve hot or cold.

Barbecue Butter Bread

- | | |
|-----------------------|---------------------|
| ½ tsp. chili powder | ¼ lb. butter |
| ¼ tsp. cayenne pepper | 1 loaf French bread |

Thoroughly blend chili powder and cayenne pepper into softened butter. Cut bread in ¼ in. slices. Brush butter generously on bread slices. Arrange in a single layer on a baking sheet and heat in a slow oven at 300°F. for 15 min.

Savory Swiss Loaf

- | | |
|----------------------------------|----------------------------------|
| 20-oz. loaf unsliced white bread | ½ c. chili sauce |
| ½ c. butter | 1½ T. celery seed |
| ½ c. finely chopped onion | 12 slices processed Swiss cheese |

Cut bread diagonally almost through to the bottom crust into 12 equal slices. Melt butter, add chopped onion and saute about 5 min. Add chili sauce and celery seed and heat 5 min. longer. Spread onion mixture between bread slices and place one cheese slice into each cut in the loaf. Place loaf on a baking sheet and pour remaining onion mixture over top. Heat in a moderate oven at 350°F. for about 20 min. Serve piping hot.

Bread Crumb Topping

Well-seasoned bread crumbs add an interesting texture, flavor and finish to creamed dishes, vegetables and casseroles. Just saute ¼ cup minced onion in ¼ cup butter until soft, but not brown. Add 1 teaspoon of poultry seasoning, one teaspoon chopped parsley and a little salt and pepper. Add 1½ cups of soft bread crumbs to the mixture and toss together until well mixed. Use as topping.

Quick Cookies

The bread box can provide you with a quick substitute for cookies. Cut day-old raisin bread in ¾-inch strips. Spread all sides with sweetened condensed milk and roll strips in coconut. Brown under the broiler, turning once.—G.L.V.



Peanut Brittle Coffee Cake

When you bake at home use Fleischmann's Active Dry Yeast for guaranteed results! Just follow this step-by-step recipe for a tender, rich coffee cake flavoured with a hint of orange and filled with crushed peanut brittle. M-m-m, yummy!

PEANUT BRITTLE COFFEE CAKE

You'll need
for the dough:

- ¾ c. milk
- 2 tsps. salt
- ⅓ c. granulated sugar
- ½ c. shortening
- ½ c. lukewarm water
- 1 tsp. granulated sugar
- 1 envelope Fleischmann's Active Dry Yeast
- 2 well-beaten eggs
- 1 tbsp. grated orange rind
- 4½ c. (about) pre-sifted all-purpose flour

for the filling and glaze:

- ½ c. crushed peanut brittle
- Soft butter or Blue Bonnet Margarine
- 1 slightly-beaten egg white
- 1 tbsp. cold water
- Finely-crushed peanut brittle

1. Scald milk; stir in salt, the ⅓ c. sugar and shortening. Cool to lukewarm.

2. Meantime, measure lukewarm water into a large bowl; stir in the 1 tsp. sugar. Sprinkle with yeast. Let stand 10 mins., then stir well. Stir in lukewarm milk mixture, eggs, orange rind and 2¼ c. of the flour.

Beat until smooth and elastic. Work in sufficient additional flour to make a soft dough—about 2¼ c. more. Knead on floured board until smooth and elastic. Place in greased bowl. Grease top. Cover. Let rise in a warm place, free from draft, until doubled in bulk—about 1½ hours. Meantime, prepare crushed peanut brittle.

3. Punch down dough. Turn out and knead until smooth. Divide into 2 equal portions. Cover with a tea towel; let rest 10 mins. Roll out one portion into a 14-inch round. Brush with soft butter or margarine. Using an inverted 4-inch bowl, mark a circle in centre of dough. Cut 12 equidistant slashes in dough from circle to outer edge. Sprinkle a little peanut brittle in centre of each section of dough. Beginning at outer edge, roll up a section; twist the roll ¼ turn clockwise. Repeat with remaining sections. Lift onto greased cookie sheet. Repeat with other portion of dough.

4. Cover. Let rise until doubled in bulk—about 1 hour. Brush with mixture of egg white and cold water; sprinkle with finely-crushed peanut brittle. Bake in a mod. oven (350°) 20 to 25 mins. Makes 2 coffee cakes.



With a crisp seed and cereal coating, you can whisk packaged refrigerator biscuits to the table as soup sticks.

[Kellogg Co. photo]

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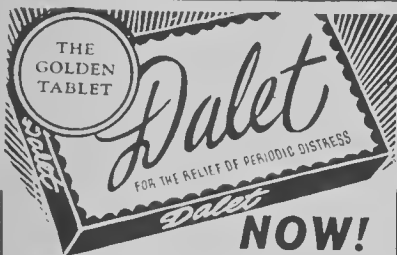
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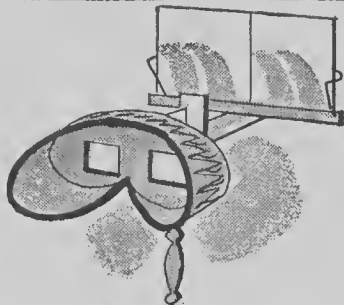
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the old stereopticon?**

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IN THE KITCHEN

Lamb to Roast, Broil, Bake and Braise

by GWEN LESLIE

THE delicate flavor of tender, juicy lamb is a menu treat you can enjoy all year round and you can prepare it in so many ways! Spring just naturally brings thoughts of lamb to mind. The main course variety and economy it offers are well worthwhile.

Each meat has its own set of distinctive characteristics. Lamb is firm, fine-grained, and velvety smooth. The color may range from light to dark pink. Lamb fat is softly firm and smooth, creamy white to slightly pink in color. The thin paper-like covering called the "fell" need not be removed before cooking.

The standard allowances of meat with and without bone apply to lamb, so you should count on ¼ to ½ lb. per serving from boneless lamb and ½ to ¾ lb. per serving from lamb with the bone in it. Allow enough more for second servings.

Fresh lamb may be stored 2 or 3 days in the refrigerator before cooking and cooked roasts may be kept in the refrigerator up to 4 days. Remember to remove all wrapping from fresh lamb after buying it; wipe meat with a damp cloth and cover loosely with wax paper. Cooked roasts ought to be thoroughly cooled, then covered tightly for refrigeration.

oven at 325°F. allowing 35 min. per pound for well-done lamb.

Core apples, then cut each in 4 rings. Arrange apple rings in a single layer on the bottom of a baking dish. Mix water and lemon juice and pour over apples. Combine cloves, sugar and cinnamon candies and sprinkle evenly over apples. Bake in a slow oven at 325°F. for 1 hr. or until tender. Baste occasionally to blend flavors and to give the apple rings a pink color. Serve hot with roast lamb.

You can cook the apple rings for a shorter time at 375°F. if not baked in the same oven with the roast.

Gourmet Seasoned Lamb Sauce

Vary your roast lamb with a new sauce.

10-oz. can con- sommé	2 T. red currant jelly
½ c. canned whole mushrooms	¼ tsp. ground rosemary
1 bay leaf, crushed	¼ tsp. pepper
1 T. cornstarch	½ c. raisins
1 T. water	1 c. sour cream, optional

Pour consomme and ¼ cup of juice from the mushrooms into a small saucepan. Add bay leaf and heat to boiling. Combine cornstarch and water, stir into hot mixture. Cook until sauce thickens and boils. Add currant jelly, rosemary, pepper and raisins. Fold in cream if desired. Serve hot over slices of roast lamb.

Fruited Lamb Chops

Distant India gives us this lamb dish.

4 lamb shoulder chops	¼ tsp. pepper
3 T. butter	¼ tsp. ground ginger
½ c. finely chop- ped onion	½ tsp. ground cloves
1 c. orange juice	½ c. chopped dried apricots
2 c. water	1 c. uncooked rice
1 tsp. shredded orange peel	½ c. finely chop- ped peanuts
1 tsp. salt	

Melt butter in frying pan. Brown lamb chops on both sides, then remove



The boned rolled roast of lamb is popular for its easy carving. A savory herbed dressing mixed from your favorite recipe may be baked separately.

from pan. Add onion and cook until soft. Add all remaining ingredients except peanuts. Place chops on top of the mixture and cover the pan. Cook about 25 min. or until rice is cooked and liquid has been absorbed. Add peanuts and heat another 5 min. Serve immediately.

Lamb and Rice Casserole

This is no lowly leftover!

- | | |
|-------------------------|-----------------------------|
| 1½ c. cubed cooked lamb | ½ c. cubed processed cheese |
| 2 T. butter | 2 T. diced pimiento |
| 3 T. flour | 1½ c. cooked rice |
| ½ tsp. salt | 1 tsp. crumbled mint leaves |
| 1¼ c. milk | ½ c. chopped ripe olives |
| 2 tsp. prepared mustard | |

Melt butter, blend in flour and salt. Gradually add milk, stirring constantly until sauce is thickened. Stir in prepared mustard. Combine lamb, cheese, pimiento, rice, mint and olives in a 1 qt. casserole and cover with the sauce. Stir the mixture to blend and bake in a hot oven at 425°F. for 20 minutes. Yields 4 to 6 servings.

Oven-Barbecued Lamb Riblets

Lamb wears a spicy barbecue sauce tastily.

- | | |
|-------------------------------|---|
| 2 rib sections breast of lamb | ¼ c. vinegar |
| Salt | 2 T. sugar |
| Pepper | 4 tsp. Worcestershire sauce |
| Smoked salt, optional | Several dashes tabasco sauce |
| 4 medium onions, sliced thin | 2 tsp. dry mustard |
| 1 lemon, sliced thin | Clove of garlic mashed or minced with 2 tsp. salt |
| 1 c. catsup | |
| 1 c. water | |

Have rib sections cut in portions of 2 ribs together. Brown meat on both sides over medium heat or in a hot oven at 400°F. Drain off fat. Arrange meat in a roaster with a tight-fitting cover. Sprinkle lamb lightly with salt, pepper and smoked salt, if desired. Tuck slices of onion and lemon between the lamb ribs. Mix the remaining ingredients together and pour sauce over the meat. Cover roaster tightly and bake in a slow oven at 325°F. until meat is tender, about 1½ hr. Spoon the sauce over the ribs 2 or 3 times during cooking. Add water if necessary to prevent sauce from sticking to the pan. Uncover and bake 15 to 20 min. more. Serve piping hot with buttered spaghetti, Parmesan cheese and a vegetable salad.

Lamb Kabobs

Oven-broil these now, barbecue in summer.

- | | |
|-------------------------------|---------------------------------|
| 1 lb. boneless lamb | 1 tsp. salt |
| 2 T. salad oil | 3 medium tomatoes, quartered |
| 2 T. vinegar | 2 medium onions, thickly sliced |
| ½ tsp. mustard | or 12 pickled onions |
| 1 clove garlic, minced | |
| 1 tsp. curry powder, optional | 12 mushrooms |

Cut lamb in 1 in. cubes. Let stand 1 hr. in marinade of oil, vinegar, and seasonings listed above.

Make kabobs by threading alternate pieces of lamb, mushrooms, tomatoes, and onions on 6 metal skewers. Brush with oil and sprinkle with salt and pepper.

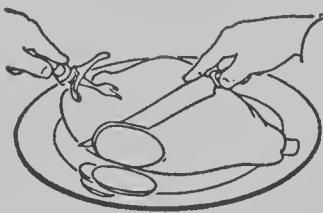
Broil kabobs 3 in. from broiler unit for 5 to 7 min. on each side. Serve immediately. V

Key to Abbreviations

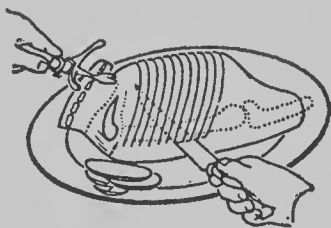
tsp.—teaspoon	oz.—ounce
T.—tablespoon	lb.—pound
c.—cup	pt.—pint
pkg.—package	qt.—quart

How to Carve The Lamb Roast

Roast Leg of Lamb



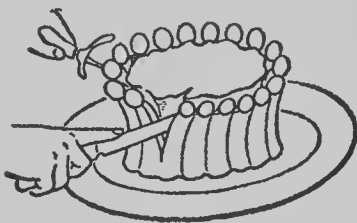
Place the platter so that the leg bone is to the carver's right. Insert the fork firmly into the large end of the leg and cut two or three lengthwise slices from the nearest side.



Turn the leg so that it rests firmly on the surface just cut. Hold the roast firmly with the fork inserted into the left end, and beginning at the shank end to the right, make the first slice down to the leg bone. Continue to make ¼ to ⅜ in. slices parallel to the first until you reach the aitch bone at the large end.

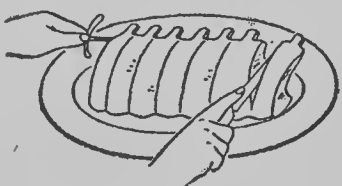
With the fork still in place, run the knife parallel to the leg bone to loosen the slices all at one time.

Crown Roast of Lamb



To carve the crown roast, insert the fork into the left side of the crown at an angle to steady it. A sharp knife will glide down between the rib bones easily and cleanly. Cut one or two rib bones per person, placing a serving of meat and a spoonful of dressing on each plate.

Rack of Roast Lamb



Insert a fork into the left end of the rack as shown. With a sharp knife held in the right hand, cut down between the ribs with clean strokes, serving one or two chop portions per person.

If rack is from a small animal it will be easier to carve if placed flat on the platter, fat side up. V

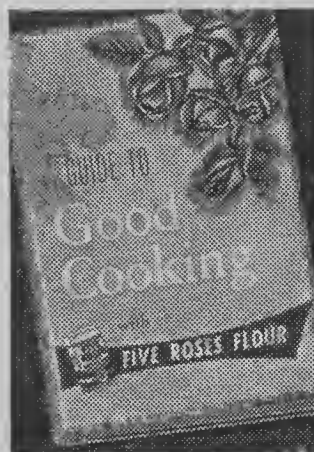
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The Country Boy and Girl

The Lost Lamb

by ANNE DONALDSON

THREE little lambs named Bella, Stella, and Della lived with their mother, Vyella, on Mr. Gee's farm. Bella was white with a black face, Stella was black with a white face, and Della was all black, so it was easy to tell them apart.

Other animals on the farm were: four cows, six horses, eleven pigs, and forty chickens. Mr. Gee's little daughter, Mary, liked the lambs best, because they were so soft when she cuddled them.

At first Vyella worried when Mary picked up Bella, or Stella, or Della. But when she saw how gentle the little girl was, she knew they were safe. Just the same she always kept one eye half open to see, one ear half open to hear, and her nose sniffing for danger as she nibbled grass or took a nap.

Next to the lambs' play yard in front of the barn, there was a yard for the pigs. Often Poinsetta, the mother pig, with her ten little pigs came over to visit. She couldn't remember names for so many babies, so she called each one "Hey You." While their mothers talked about news on the farm, the lambs played peek-a-boo with the piglets through the holes in the wire fence.

ONE morning Vyella and Poinsetta were talking about Mother Hen and her fuzzy new chicks, Bella and Stella were saying "baaa," and the little "Hey You's" squealed loudly as they played peek-a-boo. With all the noise, no one noticed that one of the little lambs was missing.

Suddenly Mary heard loud cries from Vyella and saw her running and sniffing in every corner of the play yard. She hurried over to see what was wrong. Then she saw Della was missing.

"Don't worry, Vyella," she comforted, "she can't be far." She closed the gate behind her so Bella and Stella couldn't get out. She pecked into the dark barn. There was no Della there!

Poinsetta told the chickens about the lost lamb. They ran in all directions cackling: "Della is lost! Della is lost!"

The cows and horses in their pasture heard the chickens. They crowded into one corner and stood looking over the fence. The cows said: "Moo, moo. What can we do?" The horses said "Neigh, neigh. Where did she stray?"

Just then Mr. Gee climbed down from the hayrack that he was unloading. "Dear me, what can it be?" he said hurrying over.

"Della is lost," Mary cried. "I've looked in the barn and she's not there."

"There's no way for her to get out," Mr. Gee said. "Let's look again." He opened both doors wide, so more light would come in. Mary and Vyella followed him as he looked in the mangers and stalls and all through the whole barn. Still

Poetry Contest

We had hoped to print the best poems, entered in our contest, this month. However, the judges are still busy reading them. Will you forgive us for keeping you waiting another month? — The Editors.

there was no sign of Della. Then they peered behind a bale of hay in the farthest corner. And what do you think they saw? There, fast asleep, with her head buried in the hay, lay the lost lamb.

"Here she is!" Mary called excitedly. Vyella began to lick Della with her tongue to waken her. "You naughty girl," she scolded, "you gave us a scare. Why did you hide?"

"Well," replied Della, yawning sleepily, "the noise out there made my head ache, so I snuggled into the hay for a sleep."

"I hope we don't get headaches from worrying about you," said her mother.

WHEN Bella and Stella saw them coming, they frolicked about and bleated: "Della's found! Della's found!"

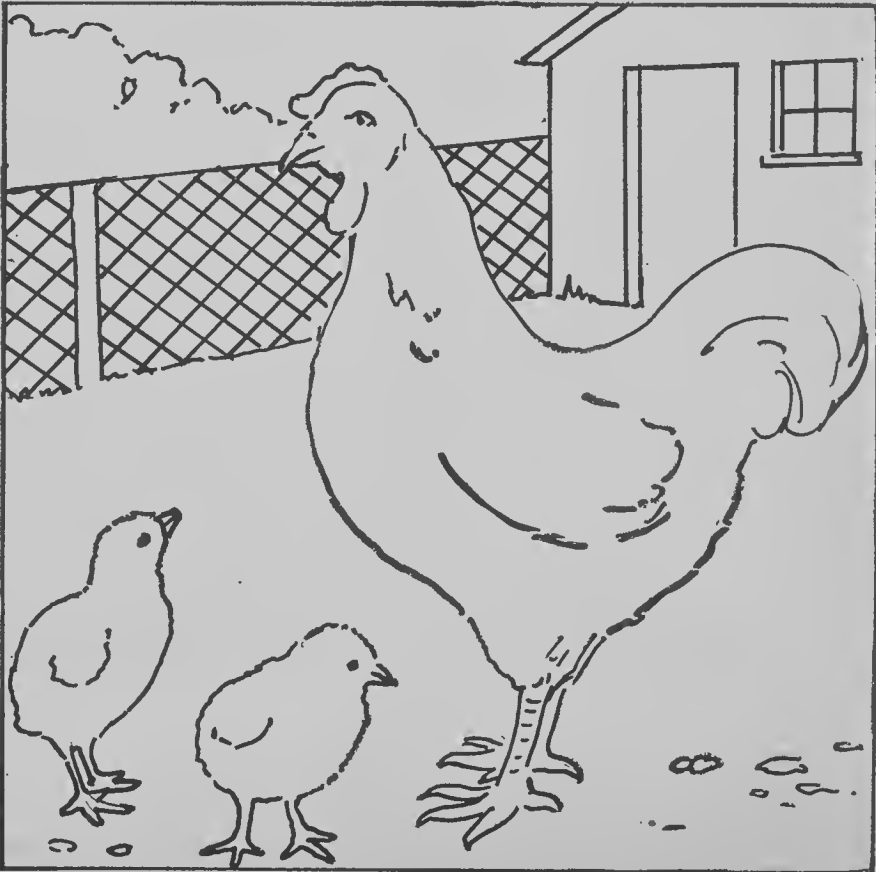
The chickens heard and ran in all directions cackling happily: "Della's found! Della's found!"

Before they went to the pasture the cows said: "Moo, moo. We're glad, aren't you?"

The horses, as they scampered away for a race, answered: "Neigh, neigh! Best news today!"

Climbing up to finish unloading the straw, Mr. Gee sighed: "What a flurry! Now I must hurry."

A Picture to Color



And Mary gave Della a huge hug before she ran to get on the school bus, which was tootling its horn on the road.

The farmyard was happy again. ✓

About Bees

Honeybees live, work, and thrive In their house we call a . . .

Although it's true, she's seldom seen, For in each hive there is a . . .

Some bees do nothing, it is known, This lazy bee is called a . . .

Though in each hive we find these shirkers, Most bees keep busy, they are the . . .

One thing a beehive never lacks Is a honeycomb made out of . . .

Throughout the summer, warm and sunny, From flower nectar bees make . . .

—MAUDE HALLMER.

Answers:
Hive; Honey;
Queen; Drone; Workers;
Vax; Honey.

April Fool

Today the winds played April Fool—
They teased me on my way to school;
Sly East Wind stole my hat of blue,
Cold North Wind made me sneeze:
"Ker-chool!"

Warm South Wind tagged me all the way,
But naughty West Wind wouldn't play
Until I reached the school house door,
Then he huff-puffed me 'cross the floor!

—FRANCES GORMAN RISSE

The Crocus and I

by MARY IONA SMITH

IN spring when crocuses "flash upon that inward eye," 55 years roll away. Again I am a flaxen-haired 5-year-old rambling with my playmates over the scarce-touched prairie land.

Then, lingering snowbanks gave way to green grassy spaces studded with crocuses—purple stars on a green sky. How we loved those crocuses!

Long before Walt Whitman had said,

*"A child went forth every day
And the first object that he looked
upon, that object he became
And that object became part of him
for the day or a certain part of
the day*

*Or for many years or stretching
cycles of years."*

I'm sure the crocuses became a part of us—not only then but for all the years since. They must also have been a part of the Indian children who preceded us. Because they respected the Manitou of each living thing, the Indian children would never have picked the flowers as lavishly as we in our exultation.

At school we learned that our "crocus" was not really a crocus. Early settlers called it by that name because it resembled the Old World crocus. Actually our "crocus" is the "Anemone patens"—the star-like wind-flower. It was often called the Pasque flower because it frequently bloomed at Easter.

At one time I thought that the beautiful cup-shaped blossom was a corolla and the furry divided cloak beneath it a calyx. Years later I learned that crocuses, like tulips and lilies, have no true corolla but a brightly colored calyx. So the cup-like blossom is a calyx and the furry cloak is an involucre. My fellow students and I were told that a plant's leaves digested food and nourished the plant. Therefore we were perplexed that the crocus' leaves never appeared until the beautiful blossom had become a bonny feathered head of seeds.

Later we learned that the crocus has a great horizontal rootstock which stores up nourishment from the late-appearing leaves and so can feed the plant in early spring without assistance.

Later years brought marriage, children and grandchildren. Yet it seems such a short time since my own children rejoicingly gathered the crocuses.

Now my grandchildren seek them out. But it is a difficult task now because many of the acres which bore crocuses lavishly in my time now produce our surplus grain.

And this is my reason for hoping that steps can be taken to ensure the crocus will be a part of every prairie child's life for generations to come. V

When planting seeds indoors, cut the bottoms from tin cans. Place the can cylinders on lids from jam or to-bacco tins and proceed with your planting. When you are ready to transplant, you can push the plants and earth up through the tin without damaging the tender growth.—Mrs. R. T. Evans, Lightwoods, Sask. V



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Young People

Why Stay in School?

DEAR STUDENTS:

Are you unsettled about your future? Does spring sometimes develop a restless spirit in you?

Easter holidays may have freed you briefly from classes and thoughts of final examinations. But the sights and sounds of spring may tempt you into thinking that faraway fields really are greener. You may even be tempted to leave school to earn your own money because you think you will be more independent. At such times you are likely to think the disciplines imposed by school hours and lessons are tiresome, perhaps unnecessary.

If these thoughts come to mind, it's time for you to ask yourself seriously why you should stay in school.

There are, of course, a number of reasons. But the most important one is the fact that a good education is the best investment you can make in your own future. Your future earning power, whether it's on the farm or in the city, will likely be directly related to the level of the formal education you have achieved. And, as you grow older, you'll find that your schooling has added to your enjoyment of living, because,

out of it you have broadened and developed your interests. Physical training builds strong muscles; continued training of your mind makes it stronger too.

Some of you don't remember living without radio. And the same may soon be said of television. In other words, we live in times of such tremendous development that the future in scientific, mathematic and electronic fields seems unlimited. The processes and procedures that were once jokingly called "pie in the sky" are quite likely to become realities in your lifetime. For example, we have already accepted television, guided missiles, rocket propulsion and atomic energy. All these emphasize the need for well-educated young men and women.

Are you now asking the question: What does this mean to me?

You already know that farms are larger and more highly mechanized, production methods more technical and intensive. This can only mean that young people who want to stay on the farm need the best possible education so they can use the information coming from universities

and experimental farms. Many of you will look for positions off the farm.

The answer, of course, is that you need the best possible education. This is true if you stay on the farm; it is equally true if you decide to work in town or city.

You probably know something of the unemployment problem through your current events study in school. If you do, you probably know that a very large percentage of those who are not working are young people who, for one reason or another, didn't complete their schooling.

It's a known fact that the more education you have, the better your opportunities for permanent employment in responsible positions. Statistics show that people with little education find it more difficult to obtain and hold jobs than those who have fairly good formal educations. Remember, too, that poorly educated workers are forced into lower-paid, less skilled occupations.

We're surrounded by the scientific progress of the twentieth century. And we are constantly reminded that its complicated machinery needs people who are trained, educated and prepared to operate it.

New, well-equipped schools offer you opportunities to get the kind of education you need for the future. Will you take advantage of these opportunities? Or will you be the student described by Shakespeare as "the whining schoolboy with his satchel and shining morning face,

creeping like a snail unwillingly to school?"

ELVA FLETCHER.

Pony Tail Problem

by CLAIRE HALLIDAY

WHEN a girl wears her hair in a pony tail (whether she is a ballerina, a Brownie or a junior miss) she likes to brush and comb it back neatly and fasten it tightly to prevent the short hairs from escaping. This is a very attractive style that keeps the hair tidy for a long time. But the hair should not be secured too tightly. Why?

Doctors and hair specialists say that constant pulling (or traction) is very hard on the hair. It drags on the hair shafts and roots, and eventually causes a condition not often found in women—baldness. (Doctors refer to it as alopecia.) The roots eventually give way from this strain and the hair tends to come out around the hair-line—the temples and above the forehead. Sometimes hair will become thin in the center of the scalp as well.

This type of baldness can also be caused by braiding hair too tightly, by using bobby pins that pull the hair or ornaments, combs, hair curlers or hobbins that fasten it too tightly. Only practice and care will teach you how to keep your pony tail pretty and neat without being so tight that it will stretch your hair and pull at the roots. You will find such care to your own advantage. V



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To others, a boon

Selection and Care Of Wash and Wear

EASY-CARE fabrics are a boon to the busy homemaker. Wash and wear wardrobes save ironing time and the expense of dry-cleaning, but the consumer needs to know what to expect from wash and wear fabrics and what treatment they must be given.

A wash and wear fabric will satisfactorily retain its original neat appearance after repeated use and launderings and should require essentially no ironing. It remains free of undesirable wrinkles both during use and after laundering, but will retain pressed-in creases or pleats. A good wash and wear fabric is well worth the few pennies extra in original cost.

Wash and wear fabrics are of two general types. The first group includes cottons, linens and rayons treated with one of several resin finishes. Such treated fabrics dry quickly, resist wrinkling, and will not shrink or stretch easily. The resin will turn yellow in chlorine bleach and if poor quality, may wash out, become stiff, or prove hard to iron.

The second group includes man-made fibers and blends of natural and man-made fibers. These are strong, durable and resist wrinkling during wear. Blends should be at least 50% man-made fiber to give easy-care performance. Check the label for this vital information. The following blends give good wash and wear results: 65% Dacron - 35% cotton; 55% Dacron - 45% rayon; 50% Dacron - 50% Orlon; 80% Orlon - 20% cotton; 70% Orlon - 30% rayon; 70% Orlon - 30% wool; 80% Acrilan - 20% cotton; 70% Acrilan - 30% rayon; 70% Acrilan - 30% wool.

For best results and long life from your wash and wear fabrics, the Consumer Information Service, Man. Dept. of Agriculture offers these suggestions:

1. Save the label so that you can follow any specific laundry instructions given by the manufacturer.

2. Wash the garment frequently even though it seems to stay fresh longer than regular fabrics. It is difficult to remove heavy soil and stains from wash and wear materials. Before washing, spot-clean stains, collar and cuffs with soap or detergent. Sponge grease stains with a dry-cleaning fluid.

3. Wash similar fabrics together because some materials lose color and others may pick them up. Always wash white fabrics in a separate load.

4. Do small loads at a time. An overcrowded washer means wrinkled clothes. If washing is done by hand, do one garment at a time and change the water frequently.

5. Correct washing temperature is a very important factor in machine washing of easy-care fabrics. Cold water is best for light to medium soil but heavy dirt or grease demands

warm or hot water. Any laundry soap or detergent is satisfactory in warm or hot water; a liquid does the best job in cold water.

6. Avoid using chlorine bleaches unless the label advises it. They may ruin the finish or cause a yellowing of the fabric.

7. Don't overwash. Five minutes in the washing stage should be adequate. If the speed can be set, use slower than normal agitation speed to reduce wrinkling.

8. Rinse water should be cold to lukewarm to prevent excess wrinkling. If your water is hard, add a water conditioner and/or a fabric softener to keep the garment from feeling harsh and from clinging to your body.

9. A dryer is the best wrinkle-remover. Before placing the garment in the machine, spin or squeeze—but do not wring—the excess water from the garment. For best results, use a medium or spin dry setting. If the dryer has only one setting, it will be quite hot, so remove the clothing before it is dry. Never over-dry a wash and wear fabric. Small loads may not have the proper tumbling action but the addition of a couple of Turkish towels will solve this problem.

10. Garments to be drip-dried on a hanger should not be squeezed or spun dry. Lift them directly from the last rinse water and put them on rust-proof hangers. Shape the garment carefully, finger-pressing seams, cuffs, collars, and button bands. Trousers should be hung on a spring-clip hanger.

11. If pressing is necessary, use a steam iron or regular iron on medium setting for cottons and low setting for synthetics and blends. A press cloth will prevent a shiny surface. V

Time to Think

*Efficiency, efficiency, I've changed
your name to haste—*

*No time for this, no time for that,
and dawdling is a waste!*

*To wash a dish by hand today is
looked on as a crime,*

*So a dishwasher cheers me on, in
my mad race with time.*

*My dishwasher hums busily, a sneer
on its smooth face;*

*It scrubs, rubs, scalds, as if to put
the dishpan in its place!*

*Still, there's a certain comfort in a
dishpan—I could THINK,*

*While dunking dishes up and down
at the old kitchen sink.*

*I'm sure that everyone is right, and
I'm old fashioned, quite;*

*It's silly to wash dishes every morn-
ing, noon, and night,*

*But I do miss the foamy suds upon
my busy hands,*

*While my thoughts wandered lazily
through Never-Never Lands!*

—FRANCES GORMAN RISSER.



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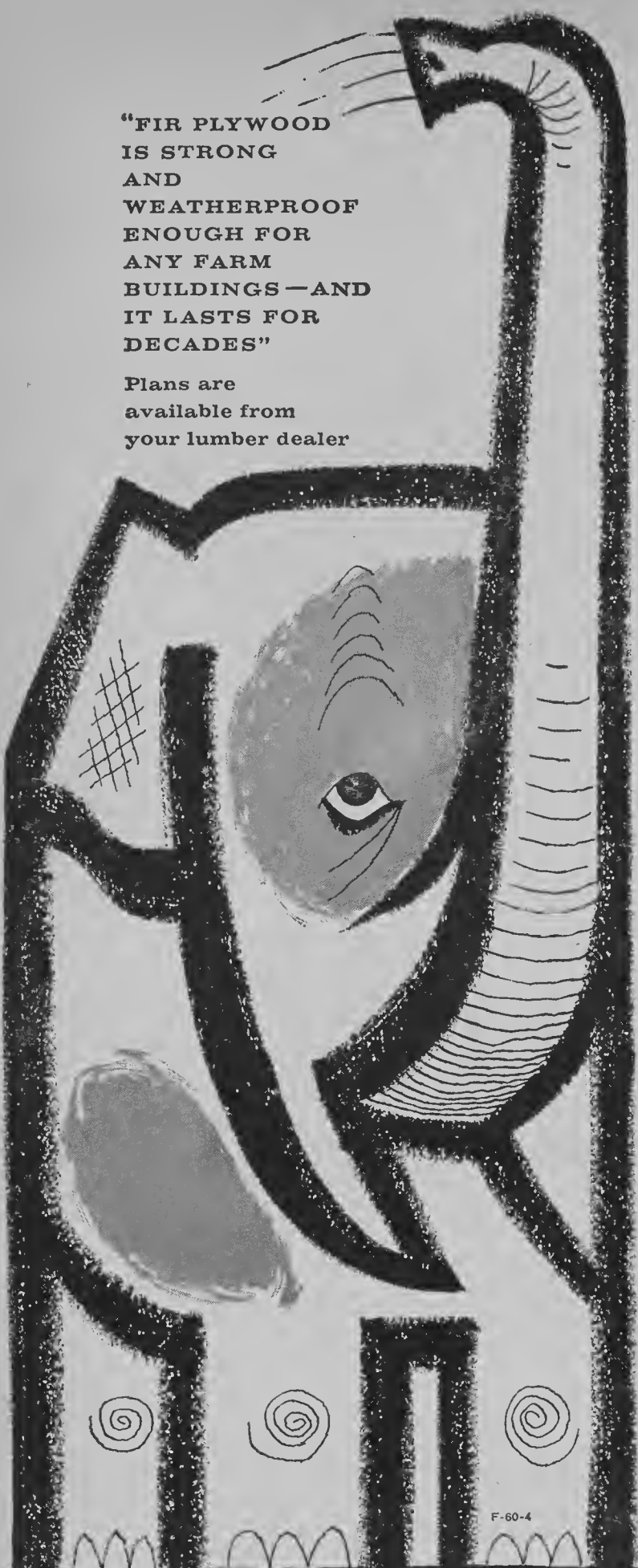
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Woman Tortured by Agonizing ITCH

"I nearly itched to death for 7½ years. Then I discovered a new wonder-working creme. Now I'm happy," writes Mrs. D. Ward of Los Angeles. Here's blessed relief from tortures of vaginal itch, rectal itch, chafing, rash and eczema with a new amazing scientific formula called LANACANE. This fast-acting, stainless medicated creme kills harmful bacteria germs while it soothes raw, irritated and inflamed skin tissue. Stops scratching and so speeds healing. Don't suffer! Get LANACANE at druggists!

ASTHMA BRONCHITIS

Chronic Do you cough night and day, trying to loosen phlegm so tightly packed in your bronchial tubes, that no amount of coughing seems sufficient to dislodge it? Do you wheeze and gasp for breath, too miserable to work or to sleep? For fast, satisfactory, longed-for relief, take Templeton's RAZ-MAH Capsules. Sleep better, work better, relieved of your coughing, wheezing and gasping. Use RAZ-MAH GREYS, 85c, \$1.65, at all drug counters.

MOTHERS!

For Children's Bronchial Asthma and Bronchitis use RAZ-MAH Greys Junior, 50c.

T. 35D

*Determined that one good turn
deserves another, this farm wife demanded*

The Wild Return the Favor

by HELEN MARQUIS

THE winter of 1950-51 started early. September, harvest month in central Saskatchewan, was 30 days of unremitting rain. Occasionally the heavy overcast lifted, and the steady downpour lightened to a mere Scotch mist. Then, after a couple of days, the gray cloud blanket lowered again and the rain resumed.

We gazed at the sodden fields in despair. Every hollow was filled with water, every slough expanded into a lake. Grain swathes in low places drowned in a watery grave. For a time swathes in higher places rode out the rains in good condition, resting on top of the stubble. But, as they became heavier and heavier with the weight of water they absorbed, they sank down until, finally, they too rested on the drenched soil.

We were gloomy about the harvest prospects but the ducks were in their element. At night they flew to the safety of the slough center, beyond the reach of marauders. At the first faint flush of dawn they came back in clouds to breakfast in the grain fields. They grew large and fat, and, as we stalked them with shotguns at the ready, they also grew wary. Nearly every day we'd bring down a brace for dinner, and a few to put in the deep-freeze. We put signs along the roadside which said "duck hunters welcome." But the roads were so bad, people hesitated to take their cars over them. As the rains continued, only a few hardy souls stayed on and then they, too, vanished.

Then, one day early in October, as if on signal, the ducks departed. When darkness shut down, they were still passing over. The rain ceased, the clouds rolled away. Against a velvety, star-studded sky such as we had not seen in a month, we saw the vague outline of their going, and heard the faint beat of

wings and the muted voices of our departing guests.

It was a grim winter and, when we gazed over the snow-drifted fields, we knew that thousands of mice under that white blanket were eating up our oat crop.

Spring came at last, and when the wind had dried out the land, our forebodings proved true. The oats were just hulls and straw, fit only to be burned. The wheat had suffered in grade. And, thanks to the ducks, only half the barley remained.

After we paid our winter debts, and bought gas for summer work, the little money left over was set aside for groceries and emergencies. There was no money for the new washing machine I needed so badly, none for new bed sheets. Most of all, I resented our inability to purchase our usual spring order of Leghorn pullet chicks. Grown and in production, they were my spending money—the reason I could indulge in a half-dozen magazine subscriptions, attend Farm-and-Home Week at the University, buy better-than-average Christmas gifts for my family. I felt like weeping, except that I was too mad. It was out of the question to set my own hens on eggs. They were Leghorns, bred for egg production, and in the evolution of making them egg machines, the maternal instinct had been left out.

WHILE the men were busy with the spring work, the care of the cattle had been thrust into my unwilling hands. Every night I walked down the pasture to the slough to collect my charges. Cow-like, they were always at the farthest corner of the field. Nearing the slough, I almost tumbled over a setting duck. She rose in a wild swoop from almost under my feet and sailed off. Ten gray-green eggs lay cupped in



"I don't mind noise while I'm driving; it's those times of ominous quiet."

a down-lined nest. I laid my hand over them and felt their elliptical smoothness. It had been years since I had felt that tender warmth peculiar to a brooded clutch of eggs—not since the days when all I had to raise chicks by was a broody hen and a dozen eggs of my own.

My own eggs!

And a broody hen!

The inspiration was like a bursting rocket.

The ducks had taken the grain. They'd deprived me of my chicks. Now they must brood them for me!

I FORGOT the cows completely. I spent the next hour locating and marking duck nests. They were comparatively easy to find. Most of the ducks were mallards and pintails, and they usually choose to nest in a clump of grass or a low bush some distance from water. So, keeping well away from the slough, I began circling it in ever-widening circles. By the third time round, I had located 20 nests and stopped, satisfied. I tied a marker—a strip torn off my apron—to a twig close to each nest for easy finding next time.

I collected the cows and drove them home.

The next morning, as the eastern sky grayed, I was at the slough with a painful of eggs. Twelve settings were hen eggs, the other eight from my own Pekin ducks. As I approached each nest, the setting ducks took to the air. I collected the duck eggs and replaced them with ones from my pail.

My task completed, I withdrew to a distance and watched the mother ducks return. In each case it was the same. The mother lighted near the edge of the nest, straddled it, lowered herself lightly. Her wings curved around the eggs and pulled them in to the warmth of her breast. Mother instinct had triumphed over her fear of human hands, and she accepted the eggs.

THREE weeks later I returned to collect the chicks. All but two had hatched. Many of the new chicks were still in their nests. A few were following their duck mother toward the slough. And 20 plaintively peeping chicks were huddled near the water's edge, protesting to anxious parents that they had no desire to go paddling, now or ever. By the time I had collected them and carried them to their new home under the warmth of the brooder, I counted exactly 118 chicks. I was very proud.

It takes 4 weeks to hatch duck eggs. So, a week later, I returned to collect my ducks. Here my luck was not so good. There were only 65 ducklings to take home. One hatch had escaped to the water and their mother kept them well out in the middle of it. Like the foxes and coyotes, I was a marauder.

All that summer, people passing on the road, were astonished to see, among the wild ducks on the slough, 10 snow white Pekin ducklings who thought they were mallards. ✓

Build a Sewing Center



THE gentle art of home sewing can be a true test of mother's patience with her family. How often do you sit down at your machine to find that such things as scissors, a yardstick, spools of thread and treasured fabric remnants have disappeared? It does temper little good to speculate whether the scissors are being used for cutting cardboard, the yardstick for measuring the height of workshop furniture still wet with paint, the thread and fabric for a doll's wardrobe. . . .

To protect your sewing equipment from family borrowers, store your sewing tools together, and declare their location out of bounds for non-sewing members of the household.

Many will find impractical to set aside a whole room, but sewing

paraphernalia can still be both centralized and safeguarded in a small locker or wardrobe, easily built from a few pieces of lumber and a little hardware. Your husband could build one inexpensively in the farm workshop.

A two-door wardrobe about 7 feet tall and 3½ feet wide is suggested for adequate storage. It may be made from plywood or pine. Divide the cupboard in two sections: a vertical section to store the ironing board, skirt marker, and garments awaiting repair or completion; and a horizontal shelf section. The cupboard need be only as deep as the width of the ironing board.

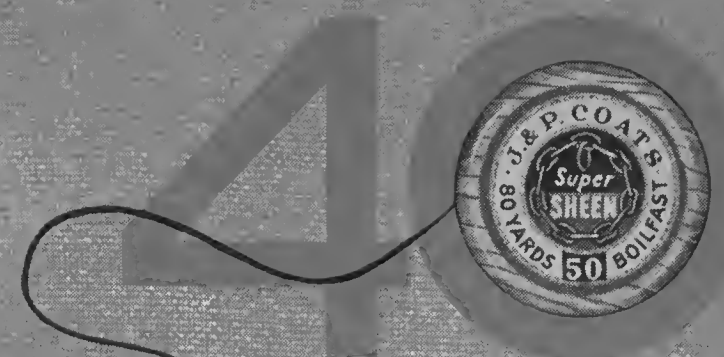
Mount the shelves on adjustable brackets to accommodate items of different sizes. The top shelf can be used for books and reference material; the second for thread and small items; and a whole shelf might be reserved for projects underway.

Cover the inside of one door with pegboard on which to hang scissors, pincushion, yardstick and other essentials. Cover the inside of the other door with beaverboard or cork for use as a bulletin board. Here you can tack up illustrations, fabric swatches, and pattern envelopes.

As a finishing touch, paint or wallpaper the wardrobe to complement the decor in your room.

If the family persists in pilfering, you can always resort to a good sturdy padlock!

—story and photo courtesy Singer Sewing Center. ✓



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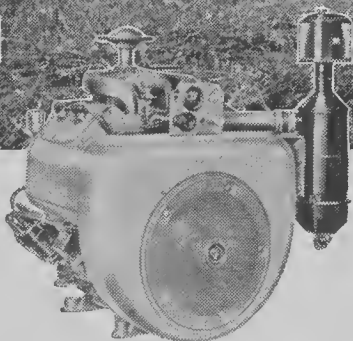
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Our Readers Suggest

When you need sour milk for cooking and do not have any, just add 1 tablespoon lemon juice or vinegar to a cup of sweet milk and it will curdle quickly. — Mrs. Joe McConnell, Merrickville, Ont.

Place an egg timer next to the 'phone when placing a long distance call. The hour-glass type works on a three-minute schedule and will warn you when your lowest cost three minutes are used up. — Mrs. Hattie Sanders, Bateman, Sask.

To prevent horseradish fumes from making your eyes sting when grinding the root, pull a plastic bag over the mouth and top of the grinder and fasten with rubber bands.

If soot falls on the floor while the chimney is being cleaned, sprinkle a handful of salt on the soot before sweeping and it will sweep up without leaving a smudge. — Mrs. G. Hoath, Winfield, Alta.

Here's an easy way to frost a window: Mix 3 teaspoons of epsom salts in a glass of water, add a teaspoonful of liquid glue and paint the window with the solution. — Mrs. P. T. Chalkowski, Parkerville, Sask.

When mending with double thread (men's overalls, etc.), put tailor's wax on the thread and it will not knot up so. — Mrs. F. E. Quinn, Creelman, Sask.

Place plastic tape on tots' bangs when you are ready to cut them. It not only gives you a straight cutting line, but also catches cut hair.

Use cold water plus a little vinegar to mop linoleum floors lightly between waxings. Dirt and grease are easily removed while the wax stays on the floor. — Mrs. Robert Kepp, Vermilion, Alta.

After using your meat grinder, run a piece of dry bread through it to clean the blades before washing. It will wash much more easily.

To keep a bowl from slipping on a work surface, place it on a wet towel. — Mrs. Estelle Gross, Grassy Lake, Alta.

Make use of your old powder puffs. Sew a piece of cloth on one side to slip fingers into and use the laundered puff for polishing shoes. Have one for each color of polish and fasten to the box with elastic bands. I use a plastic bag for polish, puff and brushes. — Mrs. Harry Brugger, Minnedosa, Man.

To remove chewing gum from clothes, press ice on it until the gum hardens and crumbles. Scrape off with a blunt knife. Sponge the area with carbon tetrachloride or the white of an egg. To remove gum from a child's hair, use egg white. — Miss Judy MacLennan, Birch Island, B.C.

It's New



A new teapot of china-like Pyroceram features a cornflower design. Its gleaming white surface cannot be harmed by extremes of temperature. (Corning Glass Works) (H-25) ✓



These attractive casseroles of Pyroceram can be moved from freezer to stove without danger of breakage. (Corning Glass Works) (H-26) ✓

Write to It's New, The Country Guide, 1760 Ellice Ave., Winnipeg 21, Man., giving the key number at the end of each item (such as H-54) for information about articles mentioned in this column. ✓

Kitchen Kinks

by LOUISE PRICE BELL

RAISINS, figs, prunes and other dried fruits will go through the food chopper without sticking if you first flour them or the chopper.

Have one measuring cup for dry ingredients, and one for wet to save time when baking.

Grease the inside of the pan in which you cook macaroni or rice. It keeps the water from boiling over and food from sticking.

Put a glass pie plate over kettle in which dumplings are cooking. You can then see how they are cooking without lifting lid and making them fall.

Before you touch fish, rinse your hands in cold water and don't dry them until after fish is prepared. Then wash in hot, soapy water. Your hands will be free of odor.

A thin coating of butter, or a cloth wrung out of vinegar, will keep cut cheese moist for a long time.

A small pair of ice-tongs is useful to take corn on cob from boiling water or hot potatoes and hot pans from the oven.

Heat lemons in boiling water, or in the oven, and they'll yield their juice more readily.

Brush metal cheese grater with salad oil; cheese won't stick and the grater will be easy to clean.

Add maple flavoring to corn syrup for an old-fashioned maple syrup taste, if you discover your maple syrup jug is empty.

Put stale shredded coconut in steamer or strainer over hot water for freshening. ✓

Homemade Paste

SMALL children enjoy cutting and pasting pictures on rainy days. The older ones take pleasure in making scrapbooks, doll houses or doll furniture. They will also enjoy cutting and pasting cartoons and comic strips clipped from newspapers into scrapbooks for sick friends. All of these require a lot of paste.

You can make this yourself at home quite inexpensively by mixing together one-half cup of lump starch with one-half cup of flour. Stir this mixture thoroughly into 1 quart of water, then bring to boil. Boil for 3 minutes. This makes a good paste with adhesive qualities superior to a flour and water mixture.—Blanche Campbell. ✓

The Rain Drops

*The rain drops 'leap upon the roof,
Slide down the window glass,
And dance a lively rigadoon
Upon the dusty grass.*

*They gurgle in the flooded drains,
Turn flip-flops in the air,
And give a cooling shower bath
To flowers, here and there.*

*Then, quite worn out and sleepy, too,
The rain drops take a nap
Upon a plump and motherly
Mud puddle's ample lap!*

—FRANCES GORMAN RISSE



Iron horse out to pasture

When this steam tractor first trundled into the fields, it was the last word in farm mechanization.

Now it is honourably retired . . . out to pasture.

Old equipment just isn't good enough, modernization is the key to progress. The manufacturing industries, with their promise of greater security and perhaps more money for less work, have tapped your labour resources. Men have left the land, lured away by the bright city lights. The country has more mouths to feed . . . and you have less hands to work with!

How do you overcome a shortage of labour? By mechanization. By a willingness to test new ideas. New ideas . . . new

methods . . . sometimes you have to take a chance. But there are many things you refuse to gamble with. When you invest in equipment, you can't afford to take a chance on quality. You know that second best is no bargain.

Past experience is still one of the most reliable guides to the best buy. Perhaps this is why most farmers in Canada prefer to buy Goodyear tires . . . past performance has proved their value.

It is a matter of simple fact that more tractors and equipment . . . more trucks . . . more cars . . . ride on Goodyear tires than on any other kind. When you need tires, see your Goodyear dealer, be sure of the quality you know you need.

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All-important Boom Stabilization is achieved by mounting the boom on a rigid frame, supported by a caster wheel, to control vertical boom movement, and an adjustable radius rod to control horizontal sway.

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- Patented clamp-on nozzles
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- Retractable type boom frame assemblies with caster wheels
- Booms adjustable from vertical through to horizontal position

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What Farm Organizations Are Doing

OFA SUPPORTS MILK PRODUCER GROUPS

The Ontario Federation of Agriculture has agreed to support Ontario's four milk producer groups in their efforts to obtain amendments to the Milk Industry Act. The milk producers will be seeking amendments to enable them to implement a new milk marketing plan in Ontario. (The main features of the new plan were carried in our March issue.)

OFA members have also directed their organization to provide \$500 financial support to a special co-operative commission on marketing, established recently by the Co-operative Union of Ontario. The commission will study the relationships existing between farm co-operatives and farm marketing boards. Both types of organizations are farmer-owned, but perform different services. Farmers are wondering whether co-operatives and marketing boards will conflict with each other, and if so, how conflict can be removed. V

SFU LOOKS TO FEDERAL GOVERNMENT

Saskatchewan Farmers' Union president A. P. Gleave described the Saskatchewan budget as being "about as good as can be expected from a provincial treasury in a sagging national economy. The gloomy outlook for agriculture, as seen by Provincial Treasurer Woodrow Lloyd, is in line with the forecasts made at the Federal-Provincial Agriculture Conference in Ottawa last November," Mr. Gleave added.

Farmers will be disappointed that, instead of getting tax-free gas for their farm trucks, the gasoline tax

will be increased, Mr. Gleave said. "The cost-price squeeze is bad enough and farmers feel they were entitled to some loosening of this squeeze."

The SFU president stated that the future of Prairie farmers depends primarily on national trade and disposal policies, and any other measures the Federal Government intends to take to correct injustices in pricing of farm products. V

NSFA EXECUTIVE MEETS AGRICULTURAL COMMITTEE

The N. S. Federation of Agriculture Executive stressed livestock production programs and a means of increasing beef numbers when it met with the Agriculture Committee of the Nova Scotia Legislature.

The NSFA argued that the value of a livestock program, which would provide an additional \$25 million income for farm people and its allied industries, is worthy of serious thought and planning.

The Federation asked the Provincial Government to lend provincial assistance in the importation of breeding heifers in order to bolster beef production. It was pointed out that with the present breeding stock within the province, beef numbers could not be increased sufficiently or quickly enough, without bringing in some from outside Nova Scotia.

The NSFA delegates to the annual meeting of the Canadian Federation met with N.S. Federal M.P.'s while in Ottawa. Main topic for discussion was the relative position of the Maritime Provinces to the provinces in Central Canada, with particular reference to the cost of manufactured goods receiving tariff protection. It was pointed out that such goods manufactured in Central Canada must be transported to other parts of the country, and therefore bear the additional cost of transportation. It was strongly indicated that as long as such goods are receiving tariff protection, and are manufactured in Central Canada, then consumers in all parts of the country should be able to share in the benefits of the industries so protected.

Nova Scotia Federation representatives also petitioned the Federal M.P.'s to have the Federal Government continue to accept the responsibility for maintaining dikes built in N.S. under the Marshland Reclamation Act. V

MFU PURCHASES NEW HEADQUARTERS

The Manitoba Farmers' Union has purchased a 1-storey building at 724 Ellice Ave., Winnipeg, to serve as the new head office location of the organization. The building will be occupied by the 11-member permanent staff of the MFU early in May. Purchase price was \$39,000, of which the MFU has already raised \$10,000. A building fund drive will be launched to raise the balance. V

What's Happening

(Continued from page 9)

for grain (7); spring rye (4); flax-seed (7); mixed grains (10); corn for grain (1); soybeans (1); potatoes (3); and summerfallow (1). These acreage increases are offset in part by prospective decreases in acreage sown to barley (down 9 per cent), and a 2 per cent decrease in rapeseed acreage.

The largest individual change in the use of cropland in 1961 is the intended increase of 784,200 acres in oats for grain, followed by flax-seed which may increase by 184,300 acres, and all wheat including durum with an increase of 168,800 acres. The largest offsetting decreases are prospective reductions of 637,000 acres for barley, and 11,400 in the acreage seeded to rapeseed.

The report emphasizes that the above figures represent farmers' plans at March 1. The acreages actually seeded, therefore, may vary considerably from intentions reported, depending on conditions before and during seeding, the availability of good quality seed, contractual arrangements, the market outlook and the effect of the intended acreage report itself.

MANITOBA ESTABLISHES CROP INSURANCE AREA

Crop insurance will be available to Manitoba farmers in seven more rural municipalities west and north of Winnipeg. This results from the establishment of the fifth test area in the province. The area includes the municipalities of Woodlands, Rockwood, Cartier, Rosser, St. Francois Xavier, Assiniboia and Charleswood. The addition of the new area brings to 104 the number of townships covered by the crop insurance legislation, or a total of almost 2.4 million acres of land.

TURKEY QUOTAS TO BE MAINTAINED

Turkey meat import quotas from the U.S.A. will be maintained during 1961 at the 1960 level of about 4 million lb., according to word from the Canada Department of Agriculture received in Regina by the Saskatchewan Poultry Commissioner, E. M. Campbell.

"This comes as assurance to our producers that U.S.A. surpluses will not be dumped on the Canadian market at distress prices," Mr. Campbell said.

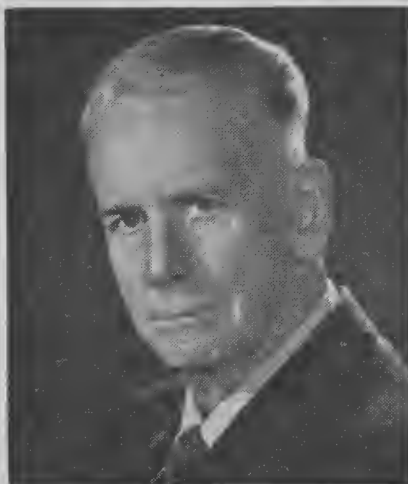
Mr. Campbell believed Saskatchewan producers, who had shown some restraint in ordering spring poults, would welcome the news. Nevertheless, he points out that overproduction could have a depressing effect on the Canadian market.

"There is still a fine balance between production and market demands in the turkey industry," he concluded.

SUGAR BEET PRICE SUPPORTS

The Agricultural Stabilization Board has been authorized to support sugar beet prices by means of deficiency payments in Quebec, Manitoba and Alberta at \$13.18 per ton, and in Ontario at \$13 per ton, basis beets yielding 250 lb. of sugar per ton. These are the prescribed prices, and are approximately 102 and 101 per cent of the 10-year average base price respectively. Deficiency payments, if required, will be the equivalent of the amount by which these prescribed prices exceed the average price per ton at which sugar beets are sold to plants in designated areas.

ALEX MERCER PASSES



Alex Mercer, former general manager of Fraser Valley Milk Producers Association, who passed away in Vancouver, March 4. He had served agriculture for more than 50 years.

Hog Board Members Changed

AS the result of a vote of hog producers, the long-time leader of hog marketing in Ontario, Charlie McInnis, has stepped off the Producers' Hog Marketing Board. Mr. McInnis, and six other members of the 11-man Board, have given way to new members. And while at least three of the new ones are probably supporters of the old Board and what it stood for, the formidable change that has occurred centers on three newcomers—leaders of the free enterprise hog producers, and outspoken critics of many of the actions of the old Hog Board. These three men are Vern Kaufman, Woodstock; Ross

McTavish, Shakespeare, and Gordon Schweitzer, Petersburg.

The new election was the first to be held under the new procedures laid down by the Provincial Government's Farm Products Marketing Board. Every member had to be elected by government-supervised voting back in his own county.

The result of the election could have far-reaching effects. Most significant result is the withdrawal of Charlie McInnis from the Board. He intends to devote most of his time from now on to the proposed farmers' meat packing co-operative. Other old-timers who will no longer sit on

the Hog Board are Clayton Frey, Wilfred Bishop, Alva Rintoul, Roy Sills, Mel Becker and Wesley Magwood.

Four old-time members of the Board were returned—Eldred Aiken, Lance Dickieson, Clare Curtin and Ben Steers.

The vote gave an insight into the feeling of farmers on the way their hogs are being sold—and the conclusion can be drawn that a surprisingly large number are unhappy.

For instance, the free enterprisers have long been considered an insignificant group. Yet, it was producers in the counties of Perth, Waterloo, and Oxford—three of the heaviest hog producing areas in the province

—who elected the free enterprise members. Voters in these counties registered their protest against the old Board with a tremendous display of voting power. They swamped their opponents, and total turnout in each county ran to 1,000 votes and more.

On the other hand, another myth seems to have been demolished. Hog Board leaders have long insisted that hog farmers through the country were seething with indignation at the Ontario Government's role in recent months. Yet in Bruce County, long a stronghold of the Hog Board, only about 300 producers came out to vote. In Wellington County, fewer than 100 voted. Both of these im-

More Canadian Farmers Buy

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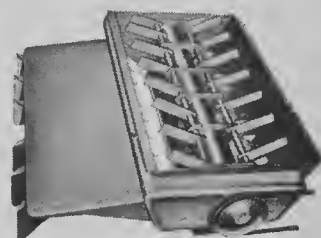
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portant hog areas returned their incumbent members. But the vote could hardly be called an endorsement of the old Board.

So far, the free enterprise members of the new Board have given no indication that they intend to try to sabotage the Board. They have said they would like to see a vote called of all producers as soon as possible on continuing the scheme.

If members of the Hog Board who support the compulsory plan are to save the scheme, the job facing them would seem to be to convince the new members that compulsory marketing can benefit the industry. V

Letters

Coloring is Dishonest

So, Mr. Richard Seaborn, MLA for Wellington, has "received hundreds of letters from housewives" asking him, through legislation, to legalize the coloring of margarine at the source of manufacture!

How margarine "soft" can the modern housewife get?

In this "high-standard-of-living" country with modern gadgeted kitchens, it should take almost no time at all, to whip a synthetic, carcino-

genic suspect called a "coloring agent" into the family margarine, if they are so incautious and puerile as to desire it.

The wives of some women are inexplicable. Does it ever occur to them that their artifice in coloring margarine is dishonest—tricking the unwary into believing that they are eating butter? They will go any length to obtain the purest white flour, the purest white sugar, white skin, white washing and what-have-you, but they abhor white margarine.

Selfishly, (as I am not a farmer's wife) I have no monetary interest involved in whether margarine is

colored or left in its pristine state.

My stand in the matter is purely an ethical one, predicated on Christian principles and precept; certainly coloring margarine at home or in the factory is both dishonest and unfair.

We are fast becoming a race of synthesists who are becoming less and less interested in the natural foods of God's creation. In our folly, we are becoming a degenerating race, unable to cope with everyday problems without frustration, mental and physical illnesses that are filling our institutions and hospitals.

Do these same housewives know that margarine, a synthetic product, is made of hydrogenated vegetable fats? In the hydrogenating process, associated vitamins and phospholipids are destroyed. When the product is dispensed from the hydrogenator it is unfit for food, having a vile odor which necessitates "refining."

With the obnoxious odor removed, the cow must come into the picture, in order to give the product a milk-like flavor, in imitation of butter. From here, a poisonous chemical, sodium benzoate, must be added as a preservative to prevent the return of any offensive odor.

If any conscientious housewife wishes to become enlightened on nutrition for her family concerning butter vs. margarine, may we suggest writing to The Lee Foundation for Nutritional Research, 3023 West Wisconsin Ave., Milwaukee 3, Wis., U.S.A., for Special Bulletin 1-50, price 5 cents.

MRS. PHYLLIS FIELD COOPER,
Box 362, Glenboro, Man.

Pointers for Sheepmen

In reading your magazine, I came across the item about flushing ewes before breeding. (Livestock Department, March 1961 issue.)

As a former sheep breeder, I might be able to pass on a few pointers. I found that sowing a field of rape and turning the ewes onto it gave the same results as grain. (Guide item concluded that it is desirable to grain-feed mature ewes before breeding to get the highest percentage of multiple ovulations.)

The only trouble with a triplet birth is that one lamb has to be fed on bottle, or switched to a ewe that gave birth to a single lamb. The only way the latter can be done successfully is smear afterbirth from the ewe that gave birth to single lamb on spare lamb, and then let the ewe smell her.

J. H. PARKER,
Windsor, Ont.

Available Summer Labor

I would be grateful to hear about labor opportunities. I am 18 years of age and studying at a classical college. I wish to work during the summer vacation.

M. NOEL PELLETIER,
Seminare d'Amos,
Amos, Abitibi, P.Q.

I am a young student, 17 years old, who wishes to find summer work, especially in an English-speaking center.

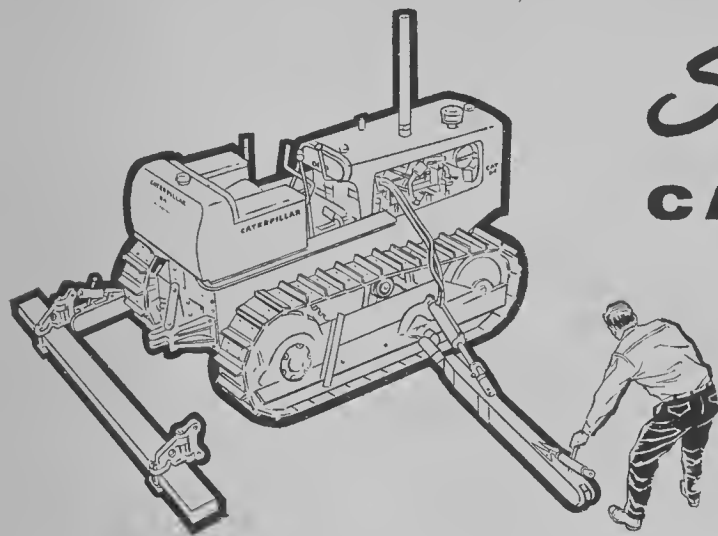
LUCIEN DUFOUR,
Seminare d'Amos,
Amos, Abitibi, P.Q.

(More Letters on page 91)

ALL-AROUND VERSATILITY

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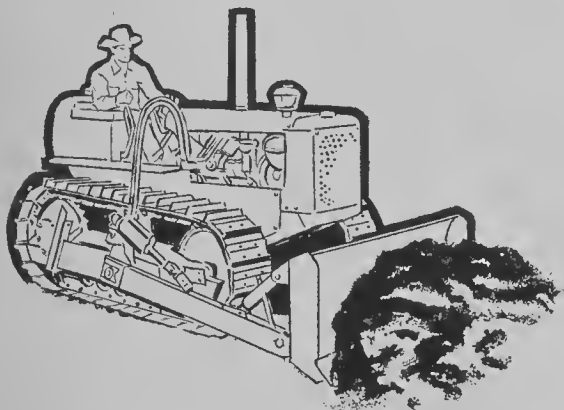
Swing-Around CAT TOOL BARS



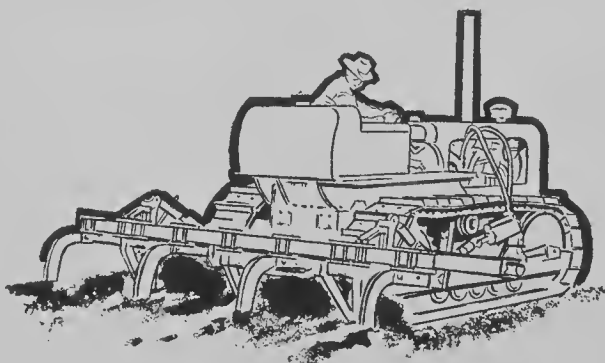
Arms of Caterpillar Tool Bar swing forward or to the rear for mounting a variety of tools on D6 and D4 Tractors.

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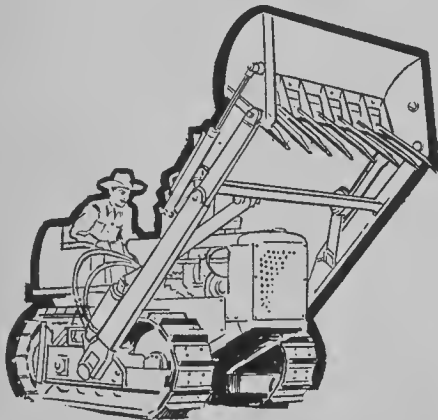
1. Carries wide range of implements mounted on choice of beams.
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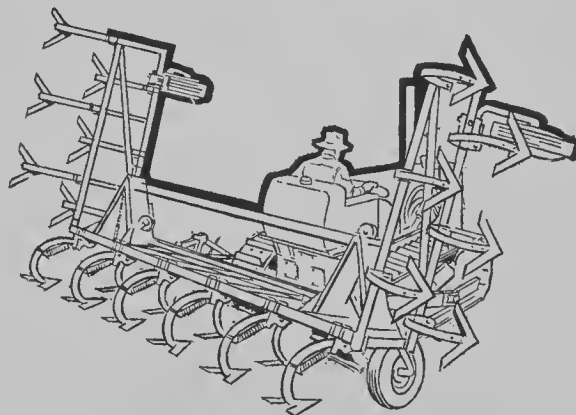
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YOUR
EFFICIENCY

Rural Route Letter

Hi Folks:

Ted Corbett claims to be an expert on wife psychology. We'd been away since dawn on a fishing trip and were an hour or so late for dinner. As we drove along, Ted was busy trying to think up a good alibi.

"I could say my car broke down," he mused, "but I hate to use an oldie like that. Somchow, I figure a fella owes it to his missus to come up with something a bit more original. Anyway I just had the car overhauled, and she knows it."

"Why don't you try the truth," I suggested. "We were having such a good time we forgot to look at our watches."

He looked at me in disbelief. "You mean you've been married all these years and you ain't learned fundamental wife psychology? Man, that's a subject which takes a lot of study!"

"In the first place, never tell a woman the truth. She'll lose her respect for you."

"How do you mean?"

"Well now, look at it like this. The truth is simple, so any simpleton can tell it. It takes real imagination to come up with a good story. The way she sees it you're either too dumb to think of one, or you care so little for her feelings you can't be bothered. That's worse, if anything."

"You've got holes in your head," I scoffed.

"But when you let her know you had a good time," he shook his head sadly, "brother, that's what really marks the amateur! No woman likes to think her man can be perfectly

happy away from her. It knocks her pride, and she's liable to knock you one to get even.

"No sir, if you want to keep peace in the family you just march into that house of yours kickin' and cussin' about the bad day you had. 'Long as she thinks you had a miserable time she'll be contented."

I remembered the last fishing trip. Sara had said, "Oh? That's nice," in a flat sort of tone when I told her about the good time we'd had. Then she'd banged my warmed-up dinner down in front of me and marched off, leaving me to do the dishes.

I decided to take Ted's advice. When he dropped me off at home I stormed onto the porch, kicked at a bucket and slammed the door hard! But all I found inside was my three kids, munching sandwiches. They stared at me suspiciously.

"What're you bangin' things around for?" my youngest boy said.

"Never you mind!" I growled, "Where's your mother?"

"Not back from the city yet," my eldest explained between mouthfuls.

"Been gone all afternoon," my daughter told me, with a look that plainly said, aren't some women awful.

Oh ho, I thought, now it's my turn to act a bit uppety.

Just then we heard our car come in, and I got all set to play the injured party. Before I could open my mouth though, Sara stormed into the kitchen.

"Seven o'clock!" she cried angrily. "Mean to say not one of you thought to do the potatoes or put a kettle on! Are you all helpless?"

She soon had us rushing guiltily around, helping her get dinner. Like Ted Corbett says, "This wife psychology takes a lot of study."

Sincerely,
PETE WILLIAMS

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by JIM ZILVERBERG



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With the McKee One-Man Shredder Harvester it's easy. It picks the hay off the field, converts to a forage blower at the flick of a lever, and blows the hay into the mow.

In the same easy way, your McKee will put your grass or corn silage into a 50-foot silo and your combined straw into your deepest mow—with one man, one tractor, and no twine. That's a real saving in money as well as work.

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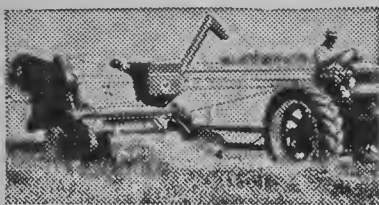
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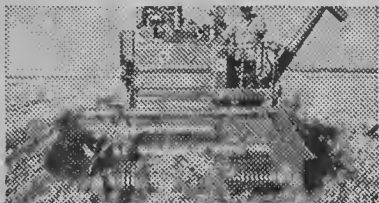
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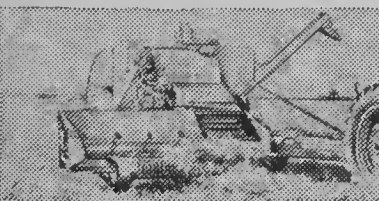
McCormick No. 80 Pull Type—this low-priced pto-powered seven footer has many big combine features to make it the best value in its class.



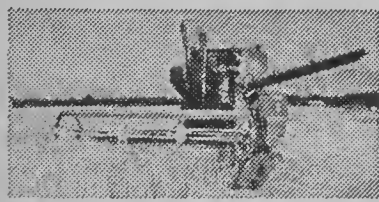
McCormick No. 91 S.P.—the revolutionary 91 offers 'turn-on-a-dime' maneuverability. Gets all the crop in tight corners. Huge capacity. Built-in power steering.



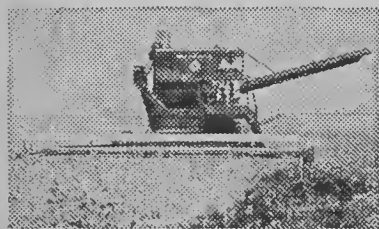
McCormick No. 101 S.P.—big capacity design and versatile performance makes this combine the leader in its class—available with 10, 12 and 14 foot platform.



McCormick No. 140 Pull Type—this is to the pull type field what the 181 is to the self propelled—the biggest capacity pull type of them all!



McCormick No. 151 S.P.—here is capacity for big-acre farmers and custom operators. Available with 12, 14 or 16 foot platform.



McCormick No. 181 S.P.—unquestionably the king of combines. Has the biggest capacity ever built into any combine. Takes a tremendous 18-foot cut in the heaviest conditions.

New INCOME PURCHASE PLAN to help farmers buy IH combines

A farmer may now buy a McCormick combine out of income, either on a monthly or crop-year basis. The broad, flexible plan recently announced by International Harvester Company of Canada, Ltd., is adap-

table to practically every farmer's income pattern, and enables him to purchase at once the new combine he should own to harvest his crops efficiently and economically in 1961.



"I seldom combine less than 80 acres per day"

says D. A. Savage,
Elm Creek, Manitoba

"I'm extremely pleased with my new 151. Last fall working 16-foot swaths of 30 bushel per acre wheat, I travelled 5½ miles per hour and seldom combined less than 80 acres a day. I found no grain thrown over—my 151 was saving it all. No problems with cracking grain either. My 151 proved an economical purchase—I can now harvest much larger acreage at less cost."

McCORMICK 10 FOOT PICK-UP IS BIG NEWS FOR FARMERS

The all-new McCormick 10 foot wide swath pick-up is available for McCormick Nos. 101, 151 and 181 combines. Full floating and adjust-

able for height. Quickly replaceable individual teeth. Factory sealed bearings seal grease in—keep dirt out.



CAPACITY-PROVED on the biggest of farms

The matchless crop-saving capacity and dependability of McCormick combines was proved again in the 1960 harvest. These are the combines that take the load off your mind by taking the crop off faster, easier, more economically.

Record capacity is built into every component to cut more acres and clean-thresh more bushels in less time than ever before.

In a McCormick combine, threshing and

separating start the moment grain enters the separator. The bar-and-wire concave separates up to 90% of the grain at the instant of threshing. Opposed-action cleaning prevents straw bunching and bridging—keeps the entire cleaning area always ready for business.

NOTE: If you agree you can't have too much capacity at harvest time, then the big, dependable grain-saving 151 or biggest No. 181 belongs on your farm!

LOOK AHEAD... MOVE AHEAD... WITH



McCORMICK 151 and 181 COMBINES

International Harvester Company of Canada, Limited, Hamilton, Canada

Letters

Wonderful World at 88

We are old and constant subscribers and have seen The Country Guide struggle to the fine, helpful magazine it has become. I hope you keep Mr. Tillenius on, with his help to those who would like to do better artistic work with brush or crayons, and the new "Clip and Save" sewing, and many others. The Weather Forecast, too. We wouldn't have a crop without you to keep us straight. We watch it and I know several who do.

I see you have introduced Petit Point now. Good for you. I have done quite a bit, but not much of it now. My sight is not quite good enough, but many will love to try it now you are bringing it to their attention.

Hope it will be a normal summer, so our gardens and flowers will thrive. Being 88 years, I will enjoy just wandering around to see everything, then sitting in the shade with a book or handwork, and once in a while thanking "Our Father" for this wonderful world.

MRS. ALFRED E. JONES,
Milestone, Sask.

Poetry Is Improvement

May I take this opportunity to say "Thank you" for adding some poetry to The Country Guide. It's a nice improvement.

By the way, I believe it was in the early 1930's that The Guide joined forces with the Nor'West Farmer. I subscribed to that first and have been taking The Guide ever since.

MRS. G. CARLSON,
Merville, B.C.

Rural Rhymes

I want to congratulate you on your fine selection of poems in the January issue—Rural Rhymes. The best, in my estimation, are the two by Clarence Edwin Flynn. If that is his real name, he must be Irish. They are a lyrical race. Is this going to be a regular feature of your paper?

I just thought I would let you know that I enjoyed the poems very much. The one about the auction sale was very good too, also the Patchwork Quilt.

MRS. R. O. LOWE,
Blackfalds, Alta.

Summer Job

I am a young French Canadian student, aged 18, and would like to work on an English-speaking farm for 2½ months during the next summer vacation. I would like every other kind of job, too. If anybody is interested, will they write to me at the address given below? I would much appreciate it.

MICHEL LAINESSE,
College d'Amos, Amos, P.Q.



Four fine-textured layers of rich chocolate cake alternating with cool, peppermint-flavored whipped cream. And using the one-bowl method it's surprisingly easy! Bake it with Magic, serve it with pride!

CHOCOLATE MINT DREAM CAKE

Sift together into a bowl

2 c. *once-sifted*
pastry flour
or 1½ c. *once-sifted*
all-purpose flour
3 *tsps.* Magic
Baking Powder
¾ *tsp.* salt
1½ c. *fine*
granulated sugar
½ c. *cocoa*

Add

⅔ c. *soft shortening*
1 c. *milk*
1 *tsp.* *vanilla*

Beat 300 strokes with wooden spoon or 2 mins. with electric mixer set at medium speed.

Add

2 *eggs*

and beat another 150 strokes or 1 min. Turn into 2 greased 8" round layer cake pans, lined in the bottom with greased waxed paper. Bake in a mod. oven 350°, 35 to 40 mins. Stand on wire racks for 10 mins. Turn out, peel off paper and allow cakes to cool completely.

Split cold layers horizontally. Put layers together again with filling and topping of Peppermint Whipped Cream Filling. Decorate with curls of chocolate.

Yield: about 10 servings.

Peppermint Whipped Cream Filling. Beat 1 pt. (2½ c.) whipping cream until softly stiff. Add and beat in ⅓ c. icing sugar and ½ tsp. peppermint extract. Tint delicately with green food coloring.

Another fine product of
STANDARD BRANDS LIMITED



"I made it myself — with Magic!"



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